Perris Gateway Project

Draft Environmental Impact Report

SCH No. 2024080050

SPA 22-05280; TPM 22-05279 (38567);
TPM 24-05150 (38985); DPR 22-00028; DPR 23-00021;
CUP 22-05295; CUP 24-05141; CUP 24-05142

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	micrograms per cubic meter
2022 Scoping Plan	2022 Scoping Plan for Achieving Carbon Neutrality
AAM	annual arithmetic mean
AB	Assembly Bill
ADA	Americans with Disabilities Act
ADT	average daily trips
AICUZ	Air Installations Compatible Use Zones
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AOZ	Airport Overlay Zone
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
BMPs	best management practices
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CAP	climate action plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Perris
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CUP	Conditional Use Permit
dB	decibels
dBA	decibels with A-weighting

ACRONYMS AND ABBREVIATIONS (cont.)

EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
EV	electric vehicle
HFC	hydrofluorocarbon
HI	Hazard Index
HVAC	heating, ventilation, and air conditioning
I-	Interstate
IPCC	United Nations Intergovernmental Panel on Climate Change
km	kilometer
LBNL	Lawrence Berkeley National Laboratory
LCFS	Low Carbon Fuel Standard
L_{MAX}	maximum noise level
LST	localized significance threshold
m^3	cubic meter
March ARB/IPA	March Air Reserve Base/Inland Port Airport
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
mg	milligrams
MICR	maximum individual cancer risk
MLD	most likely descendant
mpg	miles per gallon
mph	miles per hour
MRZ	mineral resource zone
MSHCP	Multiple Species Habitat Conservation Plan
$MTCO_2e$	metric tons of carbon dioxide equivalent
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NHTSA	National Highway Traffic and Safety Administration
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
O_3	ozone
OPR	Office of Planning and Research

ACRONYMS AND ABBREVIATIONS (cont.)

PFC	perfluorocarbon
PM_{10}	Coarse PM, 10 microns or less in diameter
$PM_{2.5}$	Fine PM, 2.5 microns or less in diameter
ppm	parts per million
PPV	peak particle velocity
Project	Perris Gateway Project
PVCC	Perris Valley Commerce Center
PVCCSP	Perris Valley Commerce Center Specific Plan
PVCCSP EIR	Perris Valley Commerce Center Specific Plan Final Environmental Impact Report
RTA	Riverside Transit Agency
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCH	State Clearinghouse
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SP	service population
SR	State Route
SRA	Source Receptor Area
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
TDM	transportation demand management
UNFCCC	United Nations Framework Convention on Climate Change
URBEMIS	URBan EMISsions model
U.S.	United States
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
ZEV	zero-emission vehicles

1.0 EXECUTIVE SUMMARY

1.1 Introduction

This Draft Environmental Impact Report (EIR) has been prepared to inform decision-makers and the public of the potentially significant environmental effects associated with the project approvals for the proposed Perris Gateway Project (Project) in the City of Perris (City). This study has been prepared pursuant to the California Environmental Quality Act, known as CEQA, (California Public Resources Code Sections 21000 et seq.) and the Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines) (California Code of Regulations, Sections 15,000, et seq.). The City is the Lead Agency for the proposed Project under CEQA and is responsible for the preparation of this Draft EIR.

1.2 Project Location

The Project site (Assessor's Parcel Numbers 314-170-020, 314-170-023, and 314-180-024) is located within the western portion of the Perris Valley Commerce Center (PVCC) area (described further below) of the City of Perris and includes approximately 20 acres (20.28 acres) of vacant land. It is located adjacent to Interstate (I-) 215, approximately 6.5 miles south of State Route (SR) 60, and approximately one mile south of March Air Reserve Base/Inland Port Airport (March ARB/IPA). Figure 3-1, *Regional Location*, depicts the Project site in relation to the region. Figure 3-2, *Aerial Photograph*, depicts the existing developed and undeveloped conditions at and surrounding the Project site. As shown, the Project site is located north of Ramona Expressway, west of Webster Avenue, and east of I-215.

1.3 Project Setting

The Project site can generally be characterized as disturbed vacant land that was previously used for agricultural purposes. The Project site is generally flat with an elevation between 1,480 and 1,500 feet above mean sea level. Stormwater runoff generally flows from northwest to southeast within the western two parcels and southwest to northeast on the eastern parcel. Runoff outfalls to a catch basin at the northeast corner of the Project site and flows into Line E of the Perris Valley Storm Drain System, which is owned and maintained by the Riverside County Flood Control and Water Conservation District and runs in an east-west direction along Ramona Expressway.

The City is within the Perris Block geologic unit, which lies within the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province is characterized by a series of northwesterly trending mountain ranges that extend from the coast of California eastward into the California desert and south to the tip of Baja California, Mexico. The Perris Block is bound on the northeast by the San Jacinto Fault, on the north by the Cucamonga Fault and the San Gabriel Mountains, and on the southwest by the Elsinore Fault and the Santa Ana Mountains. The City of Moreno Valley borders the City to the north and the City of Menifee borders the City to the south. Unincorporated areas of Riverside County border the City to the east and west.

The land uses surrounding the Project site include a mix of undeveloped and developed areas. Surrounding land uses include the Optimus Logistics Center to the north, residential land uses to the northeast, commercial development to the east, currently undeveloped areas to the south, and I-215 to the west. The vacant parcels south of the Project site along Ramona Expressway are designated in the

Perris Valley Commerce Center Specific Plan (PVCCSP) for commercial land uses, as described in Section 1.3.1 below.

The Project site is located approximately one mile south of March ARB/IPA and is located within the March ARB/IPA Airport Influence Area Boundary. The PVCCSP includes an Airport Overlay Zone (AOZ) which defines specific land uses corresponding generally with the boundaries and provisions of the 2014 March ARB/IPA Airport Land Use Compatibility Plan (ALUCP) and airport influence area. The Project site is within Airport Compatibility Zone C1 (Primary Approach/Departure Zone). Development within airport compatibility zones is restricted by the basic compatibility criteria provided in Table MA-2 of the 2014 March ARB/IPA ALUCP which is consistent with the safety and noise standards contained within the 2018 Air Installations Compatible Use Zones (AICUZ) Study. Airport Compatibility Zone C1 is a primary approach/departure zone with limited residential land uses and prohibits noise sensitive land uses and other uses which would cause hazards to flight.

The Project site is not within or adjacent to a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Area. It is not within an MSHCP Criteria Cell, Core, or Linkage Area. The Project site is also not in a survey area for mammals, amphibians, Criteria Area Plant Species Survey Area, or Narrow Endemic Plant Species Survey Area.

1.3.1 General Plan and Zoning Designations

The existing City of Perris General Plan land use designation for the Project site is PVCC SP - Perris Valley Commerce Center Specific Plan. The PVCCSP establishes the zoning for the properties within the PVCC area. As shown on Figure 3-3, *PVCCSP Land Use Designations*, the PVCCSP designation for the Project site is Commercial. Commercial land use designations are also identified immediately to the east and south of the Project site. Light Industrial designations occur along the northern property boundary and further to the north, as well as to the southeast. The small parcel located at the northernmost Project site boundary currently contains a distribution center and is designated as Business Professional Office in the PVCCSP, and the parcels northeast of the Project site are designated as Residential in the PVCCSP.

1.3.2 Perris Valley Commerce Center Specific Plan

On January 10, 2012, the City of Perris City Council adopted the PVCCSP, which was prepared pursuant to the authority granted to the City by California Government Code, Title 7, Division 1, Chapter 3, Article 8, Sections 65450 to 65457. On the same date, the City also adopted Ordinance No. 1284, adopting Specific Plan Zoning for properties within the PVCC area. The PVCCSP land uses allow for the development of approximately 3,500 acres which consist of industrial, commercial, and office uses, as well as public facilities. The PVCCSP has been subsequently amended 14 times, with Amendment No. 14 adopted in March 2023. In conjunction with its approval of the PVCCSP, the City complied with CEQA by certifying the Perris Valley Commerce Center Specific Plan Final Environmental Impact Report (PVCCSP EIR) (State Clearinghouse No. 2009081086) (Albert A. Webb Associates 2011), which is incorporated by reference in this Draft EIR and is available for public review at the City of Perris Planning Division, 135 North D Street, Perris, California 92570.

The PVCCSP EIR is a program EIR, and project-specific evaluations in later-tier environmental documents for individual development projects within the PVCC area were anticipated. The PVCCSP EIR analyzes the direct and indirect impacts resulting from implementation of the allowed development under the PVCCSP. Measures to mitigate, to the extent feasible, the significant adverse project and cumulative

impacts resulting from that development are identified in the PVCCSP EIR. In conjunction with certification of the PVCCSP EIR, the City also adopted a Mitigation Monitoring and Reporting Program. Additionally, the PVCCSP includes Standards and Guidelines to be applied to future development projects within the Specific Plan area. The City requires that future development projects within the PVCC area comply with the required PVCCSP Standards and Guidelines and applicable PVCCSP EIR mitigation measures as outlined in the Mitigation Monitoring and Reporting Program, and that these requirements are to be implemented in a timely manner.

1.4 Project Description

The proposed Project involves City approval of a Specific Plan Amendment, Tentative Parcel Map, Development Plan Reviews, and Conditional Use Permits, to allow the construction and operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash on 20.28 total acres. In total, the Project involves the development and operation of 126,342 square feet of building area across these uses. Specifically, the Project would include 80,478 square feet of self-storage use across 22 buildings, two 6,000-square-foot sit-down restaurants, six drive-through fast-food restaurants comprised of 18,400-square-foot building area, 32 vehicle fueling positions across two gas stations including 10,039 square feet of convenience store uses, and a 5,425-square-foot automated car wash building.

1.4.1 Discretionary Actions and Approvals

Pursuant to the provisions of CEQA and the State CEQA Guidelines, the City, as the Lead Agency, is charged with the responsibility of deciding whether to approve the Project. As identified above, the following permits and discretionary actions are required by the City to implement the proposed Project:

- Certification of the Environmental Impact Report (SCH No. 2024080050) with the determination that the EIR has been prepared in compliance with the requirements of CEQA.
- Specific Plan Amendment (SPA 22-05280) to add self-storage as a conditionally permitted use within the PVCCSP Commercial land use designation.
- Tentative Parcel Map (TPM 22-05275 [38576]) to subdivide the existing two-parcel western site into four parcels.
- Tentative Parcel Map (TPM 24-05150 [38985]) to subdivide the existing one-parcel eastern site into four parcels.
- Development Plan Review (DPR 22-00028) to approve the proposed western site development plan.
- Development Plan Review (DPR 23-00021) to approve the proposed eastern site development plan.
- Conditional Use Permit (CUP 22-05295) to allow self-storage uses on the site, designated as Commercial under the PVCCSP.
- Conditional Use Permit (CUP 24-05141) to allow drive-through services on the site, designated as Commercial under the PVCCSP.

- Conditional Use Permit (CUP 24-05142) to allow drive-through service gas station uses with alcohol sales for off-site consumption on the site, designated as Commercial under the PVCCSP.
- Riverside County Airport Land Use Commission (ALUC) Consistency Review (Approved July 11, 2024).

Other non-discretionary actions anticipated to be taken by the City at the staff level for the proposed Project include:

- Review and approval of all off-site infrastructure plans, including street and utility improvements pursuant to the conditions of approval;
- Review of all plans, including grading and onsite utilities; and
- Approval of a Preliminary Water Quality Management Plan to mitigate post-construction runoff flows.

Approvals and permits that may be required by other agencies include:

- A National Pollutant Discharge Elimination System permit and a Construction Activity General Construction Permit from the Regional Water Quality Control Board to ensure that construction site drainage velocities are equal to or less than the pre-construction conditions and downstream water quality is not worsened;
- Permits to construct and/or permits to operate new stationary sources of equipment that emit or control air contaminants, such as heating, ventilation, and air conditioning units, cooking equipment, and fuel dispensers from the South Coast Air Quality Management District;
- Permits and associated approvals, as necessary for the installation of new utility infrastructure or connections to existing facilities.

1.5 Project Objectives

The applicant's goals for the proposed Project are to provide for the development of local serving commercial uses in the northern portion of the City and to increase employment opportunities while providing development compatible with the March ARB/IPA ALUCP. These goals align with various aspects of Connect SoCal – The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments (SCAG), primarily related to balancing job and housing opportunities in local areas to reduce long commutes from home to work. SCAG identifies the Inland Empire as a housing-rich area and coastal communities as job-rich areas and is striving in its policies to achieve more local balances of jobs and housing.

1.6 Project Alternatives

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the significant impacts of a proposed project. The State CEQA Guidelines (Section 15126(d)) emphasizes the selection of a reasonable range of technically feasible alternatives and adequate assessment of these alternatives to allow for a comparative analysis and consideration by decision-makers. The State CEQA Guidelines

state that the discussion of alternatives shall focus on alternatives capable of eliminating or reducing significant adverse environmental effects of a proposed project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The range of alternatives required in an EIR is governed by a "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

Of the alternatives considered, the EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Pursuant to CEQA, "feasible" has been defined as "...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

As described in Sections 4.1, 4.2, and 7.0 of this EIR, the potentially significant impacts of the Project can be mitigated to a less than significant level except for operational and cumulative air quality and greenhouse gas emissions impacts.

The alternatives considered in this EIR to address these impacts include the following:

- Alternative 1 – No Project

  Under the No Project Alternative, the proposed development of commercial uses including restaurant, gas station, car wash, and self-storage facilities would not occur. The Project site would remain in its current condition and remain vacant.

- Alternative 2 – Reduced Development Alternative

  This alternative would implement the uses proposed by the Project at a lower intensity, such that vehicle trips and their associated air quality and greenhouse gas emissions would be reduced. The Reduced Development Alternative considers development of commercial uses including 80,478 square feet of self-storage use across 22 buildings, two 6,000-square-foot sit-down restaurants, six drive-through fast-food restaurants comprised of 18,400-square-feet of building area, 20 vehicle fueling positions within one gas station including 5,000 square feet of convenience store uses, and a 5,425-square-foot automated car wash building. This scenario represents the removal of one gas station with 12 vehicle fueling positions and its associated convenience store as compared to the proposed Project. The Reduced Development Alternative retains the self-storage facility, drive-through restaurants, sit-down restaurant uses, and car wash as proposed by the Project.

CEQA requires the identification of an environmentally superior alternative. Section 15126.6(e)(2) of the State CEQA Guidelines states that, if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The No Project Alternative has the least impact to the environment because it would not involve any construction or operational activities. While this alternative would avoid the significant effects of the Project, it would not be consistent with the City of Perris General Plan or PVCCSP, which anticipates

development of the Project site, resulting in a potentially significant land use impact. Additionally, none of the Project objectives would be met.

Therefore, the other environmentally superior alternative is the Reduced Development Alternative. This alternative would meet the Project objectives, although to a lesser degree than the proposed Project given the reduced commercial uses and employment opportunities that would be provided in the City. This alternative would reduce the significant air quality and greenhouse gas impacts of the Project, but not to a less than significant level. No increase in the severity of impacts would occur under the Reduced Density Alternative.

1.7 Areas of Controversy

State CEQA Guidelines Section 15123(b)(2) requires the Lead Agency to identify any known issues of controversy in the Executive Summary. In compliance with Section 15201 of the State CEQA Guidelines, the City has taken steps to provide opportunities for public participation in the initial environmental review process. As noted above, on August 2, 2024 the Project Notice of Preparation was filed at the Riverside County Clerk's Office. The City also distributed the Notice of Preparation to 54 federal, state, regional, and local government agencies and interested parties for a 30-day public review period to solicit comments and to inform agencies and the public of the Project. The Notice of Preparation comment period began on August 2, 2024 and ended on September 3, 2024. A Draft EIR public scoping meeting was held during a Planning Commission meeting on August 7, 2024. The City received three responses to the Notice of Preparation.

The Lead Agency has identified some issues of controversy associated with the Project after consideration of all comments received in response to the Notice of Preparation. The issues of controversy are:

- Potential impacts to tribal cultural resources;
- Potential impacts to the City's storm drain facilities; and
- Potential air quality and health risk effects of the Project's gas station operations.

Regarding issues to be resolved, this Draft EIR addresses the environmental issues that are known by the City, issues that were identified in the comment letters that the City received in response to the Project Notice of Preparation (refer to Appendix A of this Draft EIR for Notice of Preparation responses), and comments received during the Draft EIR scoping meeting.

1.8 Summary of Significant Environmental Impacts

Table 1-1, *Draft EIR Impact Summary Matrix*, below, provides a summary of impacts related to the proposed Project. The table identifies significant environmental impacts resulting from the Project pursuant to the State CEQA Guidelines Section 15123(b)(1).

Table 1-1
DRAFT EIR IMPACT SUMMARY MATRIX

Impact Category	Impact	Applicable PVCCSP Mitigation Measures and Additional Project-level Mitigation Measures	Impact After Mitigation
Air Quality	Conflict with or obstruct implementation of the applicable air quality plan.	No applicable PVCCSP mitigation measures. No additional Project-level mitigation is required.	Less than significant without mitigation.
Air Quality	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	**MM Air 1:** To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available URBan EMISsions (URBEMIS) model, or other analytical method determined in conjunction with the South Coast Air Quality Management District (AQMD). The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate South Coast AQMD's Localized Significance Threshold (LST) analysis or other appropriate analyses as determined in conjunction with South Coast AQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.	Significant and unavoidable.
		MM Air 2: Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and offsite, scheduling of construction activities that affect traffic flow on the arterial system to off peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.	

Impact Category	Impact	Applicable PVCCSP Mitigation Measures and Additional Project-level Mitigation Measures	Impact After Mitigation
Air Quality		**MM Air 3:** To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with South Coast AQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the South Coast AQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to: • requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for20 days or more, assuming no rain); • keeping disturbed/loose soil moist at all times; requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered; installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip; • posting and enforcement of traffic speed limits of 15 miles per hour (mph) or less on all unpaved potions of the project sites; • suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 mph; • appointment of a construction relations officer to act as a community liaison concerning onsite construction activity including resolution of issues related toPM10 generation; • sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of South Coast AQMD Rule1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials; and replacement of ground cover in disturbed areas as quickly as possible.	
		MM Air 4: Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.	

Impact Category	Impact	Applicable PVCCSP Mitigation Measures and Additional Project-level Mitigation Measures	Impact After Mitigation
Air Quality		**MM Air 5:** Electricity from power poles shall be used instead of temporary diesel or gasoline powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.	
		MM Air 6: The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled offroad construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (South Coast AQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or USEPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOX unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.	
		MM Air 7: During construction, ozone (O3) precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.	
		MM Air 8: Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.	

Impact Category	Impact	Applicable PVCCSP Mitigation Measures and Additional Project-level Mitigation Measures	Impact After Mitigation
Air Quality		**MM Air 9:** To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in South Coast AQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.	
		MM Air 10: To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as Lead Agency in conjunction with the South Coast AQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate South Coast AQMD's LST analysis, Carbon Monoxide (CO) Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with South Coast AQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.	
		MM Air 14: Each implementing development project shall designate parking spaces for high occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance would be required prior to the issuance of occupancy permits.	

Impact Category	Impact	Applicable PVCCSP Mitigation Measures and Additional Project-level Mitigation Measures	Impact After Mitigation
		MM Air 18: Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the Project sites shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of Americans with Disabilities Act (ADA)-compliant paths to the major building entrances in the project.	
		MM Air 19: In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the Project sites These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.	
Air Quality		**MM Air 20:** Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.	
	Expose sensitive receptors to substantial pollutant concentration.	No applicable PVCCSP mitigation measures. No additional Project-level mitigation is required.	Less than significant without mitigation.
	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	No applicable PVCCSP mitigation measures. No additional Project-level mitigation is required.	Less than significant without mitigation.

Impact Category	Impact	Applicable PVCCSP Mitigation Measures and Additional Project-level Mitigation Measures	Impact After Mitigation
Greenhouse Gas Emission	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	**MM Air 4-7, 14, 18-20**	Significant and unavoidable.
Greenhouse Gas Emissions	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No applicable PVCCSP mitigation measures. No additional Project-level mitigation is required.	Less than significant without mitigation.

1.9 References

Albert A. Webb Associates. 2011. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report. November 2011, certified January 10, 2012. Available at: https://www.cityofperris.org/Home/ShowDocument?id=2645.

Southern California Association of Governments (SCAG). 2020. The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. September. Available at: https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020. Accessed September 30, 2024.

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2.0 INTRODUCTION

2.1 Purpose of the EIR

This Draft Environmental Impact Report (EIR) has been prepared to evaluate the potential environmental impacts associated with the construction and operation of the proposed Perris Gateway Project (Project). The Project involves the construction and operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash on a 20.28 acre site. The Project would also provide associated onsite parking, landscaping, and roadway and infrastructure improvements in conjunction with the proposed uses. The City of Perris (City) is the Lead Agency for the Project under the California Environmental Quality Act (CEQA) and is responsible for preparing the EIR. The determination that the City is the "Lead Agency" is made in accordance with Sections 15051 and 15367 of the Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines), which define the lead agency as the public agency that has the principal responsibility for carrying out or approving a project.

This Draft EIR is an informational document prepared by the City for the following purposes:

- To satisfy the requirements of CEQA (California Public Resources Code, Sections 21000-21178) and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 14, Sections 15000-15387).

- To inform the public, the local community, and responsible or interested public agencies of Project details, including the scope of the Project, the potential environmental effects of the Project, potential measures to mitigate those significant effects, and alternatives to the Project.

- To enable City decision-makers to consider environmental consequences when deciding whether to approve the Project.

- To serve as a source document for responsible agencies to issue permits and approvals, as required, for development of the Project.

As described in CEQA and the State CEQA Guidelines, public agencies are charged with the duty of avoiding or substantially lessening significant environmental effects, where feasible. In satisfying this duty, a public agency has an obligation to balance a project's significant effects on the environment with its benefits, including economic, social, technological, legal, and other benefits. The lead agency is required to consider the information in the EIR, along with any other relevant information, in making its decisions on the project. Although the EIR does not determine the ultimate decision that will be made regarding approval of a project, CEQA requires the lead agency to consider the information in the EIR and make findings regarding each significant and unavoidable effect identified in the EIR. The City, as Lead Agency for the Project, will review and consider certification of the Final EIR prior to any decision on whether to approve the proposed Project.

This Draft EIR has been prepared utilizing information from City planning and environmental documents, technical studies prepared for the Project, and other publicly available data. As permitted under the State CEQA Guidelines (Section 15084[d–e]), this Draft EIR has been prepared by a consultant under the direction of City planning staff. However, the City has undertaken an independent review of this Draft

EIR by having City planning staff work with the consultant on the EIR and by employing a third-party consultant to independently review the EIR. Therefore, if certified by the City, the information included, and the conclusions reached in the EIR, will represent the City's independent judgment regarding the potential environmental impacts of the Project.

2.2 Type of EIR

The proposed Project site is located within the Perris Valley Commerce Center (PVCC) area of the City and is subject to the Perris Valley Commerce Center Specific Plan (PVCCSP), which was adopted by the City on January 10, 2012 (Ordinance No. 1284) and, as of the date that this Draft EIR was prepared, has been subsequently amended 14 times. The environmental impacts resulting from implementation of allowed development under the PVCCSP have been evaluated in the Perris Valley Commerce Center Specific Plan Final Environmental Impact Report (PVCCSP EIR) (State Clearinghouse [SCH] No. 2009081086), which was certified by the City in January 2012. The PVCCSP EIR is a program EIR and was prepared in accordance with CEQA and the State CEQA Guidelines. Project-specific evaluation in a later-tier environmental document for individual development projects within the PVCC area was anticipated. As stated in Section 15168(d)(3) of the State CEQA Guidelines, the program EIR can "focus an EIR on a later activity to permit discussion solely of new effects which had not been considered before". As such, the environmental analysis for the Project presented in this Draft EIR is based on, or "tiered" from, the analysis presented in the PVCCSP EIR, when applicable, and the PVCCSP EIR is incorporated by reference (refer to Section 2.6).

Section 15152 of the State CEQA Guidelines states, "Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on issues specific to the later project." CEQA and the State CEQA Guidelines encourage the use of tiered environmental documents to eliminate repetitive discussions of the same issues.

The PVCCSP EIR analyzes the direct and indirect impacts resulting from implementation of the allowed development under the PVCCSP. Section 15152(f) of the State CEQA Guidelines instructs that, when tiering, a later EIR or Negative Declaration shall be prepared when the later project may cause significant effects on the environment that were not adequately addressed in the prior EIR. Significant environmental effects are considered to have been "adequately addressed" if the lead agency determines that:

A. they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

B. they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

Following review of the Project, which requires an amendment to the PVCCSP, and the analysis presented in the PVCCSP EIR, the City has determined that the Project is a "project" under CEQA that was not fully addressed in the PVCCSP EIR. Additional information regarding issues to be further evaluated in this Draft EIR is provided in Section 2.4, Scope of this EIR.

2.3 EIR Process

The City, as Lead Agency for the Project, and other public agencies (i.e., responsible and trustee agencies) that may use the EIR in their decision making or permitting processes will consider the information in this EIR along with other information that may be presented during the CEQA process.

An Initial Study was prepared by the City to identify those aspects of the proposed Project that, either individually or cumulatively, may cause a significant adverse effect on the physical environment. The Initial Study determined that the proposed Project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been adequately addressed by mitigation measures as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be adequately mitigated. The Initial Study indicated that the Project EIR should focus its analysis on the two environmental subject areas as listed below in Subsection 2.4.3.

The City then prepared a Notice of Preparation of a Draft EIR, which it filed with the Riverside County Clerk's Office and posted on the State Clearinghouse website for a 30-day public review period, which began on August 2, 2024. The City received written comments on the scope of the EIR during those 30 days, which have been considered by the City in the preparation of this Draft EIR. The City also held a Draft EIR scoping meeting open to interested public agencies and members of the public during its regularly scheduled Planning Commission hearing on August 7, 2024. Comments received during the scoping meeting are detailed in Section 2.4.1 below.

The Project Notice of Preparation, Initial Study, and responses to the Notice of Preparation are included in Appendix A of this Draft EIR.

This Draft EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. Prior to the start of the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public review period, the City will prepare and publish responses to written comments received related to the potential environmental effects of the proposed Project. The Final EIR will be reviewed by the City of Perris Planning Commission, which will then provide its recommendation regarding certification of the Final EIR to the Perris City Council. Certification of the Final EIR would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant and unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program, which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The Mitigation Monitoring and Reporting Program will ensure CEQA compliance during Project construction and operation.

2.4 Scope of this EIR

2.4.1 Draft EIR Scoping Process

In compliance with Section 15201 of the State CEQA Guidelines, the City has taken steps to provide opportunities for public participation in the initial environmental review process. As noted above, on August 2, 2024, the Project Notice of Preparation was filed at the Riverside County Clerk's Office and posted on the State Clearinghouse website. The City also distributed the Notice of Preparation to 54 federal, state, regional, and local government agencies and interested parties for a 30-day public review period to inform agencies and the public of the Project and solicit comments on the scope of the EIR. The Notice of Preparation comment period began on August 2, 2024 and ended on September 3, 2024. A public scoping meeting was held during a regularly scheduled Planning Commission meeting on August 7, 2024. During the scoping meeting, the Project was described, potential environmental effects associated with Project implementation were identified, and agencies and the public were invited to comment on the scope of the EIR.

The City received three responses to the Notice of Preparation. Table 2-1, *Notice of Preparation Response Summary*, provides a summary of the Notice of Preparation responses and issues raised as well as where these issues are addressed in the EIR. The issues raised in these responses represent the areas of controversy and issues to be resolved. A copy of the Notice of Preparation, Initial Study, and responses received are included in Appendix A of this Draft EIR.

Table 2-1
NOTICE OF PREPARATION RESPONSE SUMMARY

Commenter	Date	Comment Summary	Where Addressed in Draft EIR
Public Agencies			
Native American Heritage Commission (NAHC)	August 15, 2024	The NAHC recommended tribal consultation with the California Native American tribes that are traditionally and culturally affiliated with the Project's geographic area and a cultural resource assessment to identify and avoid sensitive cultural resources.	Section 7.1.16
Riverside County Flood Control and Water Conservation District	August 29, 2024	The Riverside County Flood Control and Water Conservation District noted that the Project involves District proposed Master Drainage Plan facilities and is within the limits of the Perris Valley Drainage Plan for which drainage fees have been adopted. The District stated that the Project applicant shall enter into a cooperative agreement with the District for inspection, operation, and maintenance of the facilities; the applicant will also be required to pay the appropriate fees and obtain an encroachment permit for any construction related activities occurring within District facilities.	Section 7.1.8

Commenter	Date	Comment Summary	Where Addressed in Draft EIR
South Coast Air Quality Management District (AQMD)	September 3, 2024	The South Coast AQMD recommended that the Project include a health risk assessment and mitigation measures, as necessary, to reduce adverse air quality and greenhouse gas emissions impacts.	Section 4.1 and Section 4.2

As noted previously, a Draft EIR public scoping meeting was conducted on August 7, 2024 during the regularly scheduled Perris Planning Commission hearing at the Perris City Hall City Council Chambers. City staff described the Project to the Planning Commission and members of the public and provided a conceptual site plan and architectural elevations for the Project. Following a brief explanation of the environmental review process by the EIR consultant, comments from the Planning Commissioners were solicited. The Planning Commissioners raised comments regarding aesthetics, traffic delays and safety, and air quality and noise impacts on nearby sensitive receptors. Potential impacts related to aesthetics, traffic, and noise are addressed in Section 7.0, *Effects Found Not to be Significant*. Air quality impacts are discussed in Section 4.1, *Air Quality*.

2.4.2 Effects Found Not to be Significant

As identified in the Initial Study circulated with the Notice of Preparation and included in Appendix A of this Draft EIR, the City concluded that the Project would have no impact, a less than significant impact, or a less than significant impact with mitigation related to aesthetics, agriculture and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Therefore, no further detailed analysis of these topics is required in the Draft EIR. Refer to Section 7.0 of this Draft EIR for a discussion of these issue areas.

2.4.3 Potentially Significant Impacts of the Proposed Project

The Initial Study, Notice of Preparation, and comments received on the Notice of Preparation were used to establish the scope of the issues addressed in this Draft EIR. The City identified that additional Project-level analysis was required to evaluate potential impacts associated with the implementation of the Project for air quality and greenhouse gas emissions, which is provided in Section 4.0, *Environmental Analysis*, of this Draft EIR.

2.5 EIR Format and Content

This Draft EIR contains the information required to be included in an EIR as specified by CEQA and the State CEQA Guidelines (California Public Resources Code, Section 21000 et. seq. and CCR, Title 14, Chapter 5). State CEQA Guidelines Sections 15122-15131 outline the required content of an EIR. In summary, the content and format of this EIR is as follows:

- **Section 1.0, Executive Summary**, provides an overview of the Draft EIR document and CEQA process. The Project, including its objectives, is summarized, and the location and regional setting of the Project site is documented. In addition, the Executive Summary discloses the potential areas of controversy related to the Project and identifies the potential alternatives to the proposed Project as required by CEQA. Finally, the Executive Summary provides a summary

of the Project's impacts, mitigation measures, and conclusions, in a table that will form the basis of the Project's Mitigation Monitoring and Reporting Program.

- **Section 2.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the City, serving as the Lead Agency for this EIR; a description of the Initial Study/Notice of Preparation and scoping process; and an overview of the Draft EIR format.

- **Section 3.0, Project Description**, serves as the EIR's Project Description for the purposes of CEQA. This section provides a detailed description of the Project, including its purpose, main objectives, construction characteristics, and operational characteristics expected over the Project's lifetime, should development occur on the property. The section also describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context used as the baseline for analysis in this Draft EIR. In addition, the discretionary actions required of the City and other government agencies to implement the Project are discussed.

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the proposed Project. The analyses in Section 4.0 are based primarily on the technical reports that are appended to this Draft EIR. Information is also drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and are cited in each individual section. A conclusion concerning significance is reached for each discussion and mitigation measures are presented as warranted. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations would need to be adopted by the City pursuant to State CEQA Guidelines Section 15093.

- **Section 5.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's significant environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that foster informed decision making and public participation. Two alternatives, including the CEQA-required No Project Alternative, are evaluated in detail in Section 5.0.

- **Section 6.0, Other CEQA Considerations**, includes specific topics that are required by CEQA and not covered elsewhere in this Draft EIR. These include a summary of the Project's significant and unavoidable environmental effects; a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented; and potential growth-inducing aspects of the proposed Project.

- **Section 7.0, Effects Found Not to be Significant**, includes a discussion of the potential environmental effects that were found not to be significant during the Notice of Preparation public review process and that, therefore, do not require a detailed evaluation in this Draft EIR.

- **Section 8.0, List of EIR Preparers**, lists the persons who authored or participated in preparing this Draft EIR.

2.6 Incorporation by Reference

In accordance with Section 15150 of the State CEQA Guidelines, an EIR may incorporate by reference all or portions of another document that is a part of public record or is available to the public. The previously prepared EIRs and documents listed below were relied upon or consulted in the preparation of this Draft EIR, and are hereby incorporated by reference:

- Perris Comprehensive General Plan 2030, City of Perris, originally approved April 26, 2005, and subsequently amended.
- City of Perris General Plan 2030 Environmental Impact Report (SCH No. 2004031135), certified April 26, 2005.
- Perris Municipal Code for the City of Perris, adopted 1972 and amended through November 28, 2023.
- Perris Valley Commerce Center Specific Plan adopted January 10, 2012, and subsequently amended.
- Perris Valley Commerce Center Specific Plan Final Environmental Impact Report (SCH No. 2009081086), certified January 10, 2012.
- Optimus Logistics Center Draft Environmental Impact Report (SCH No. 2012111003), certified January 12, 2016.

These documents are available for review at the address provided in Section 2.7, below.

2.7 Public Review of the Draft EIR

This Draft EIR is being circulated for review and comment to the public and other interested parties, agencies, and organizations. The comment period will begin on January 31, 2025 and end on March 17, 2025. During the review period, the Draft EIR will be available for review at the Planning Division building at the address presented below. The Draft EIR will also be available on the City's website at https://www.cityofperris.org/departments/development-services/planning/environmental-documents-for-public-review.

Written comments on the Draft EIR should be addressed to:

Mathew Evans, Project Planner
City of Perris Planning Division
135 North D Street
Perris, California 92570
mevans@cityofperris.org

2.8 References

Albert A. Webb Associates. 2011. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report SCH No. 2009081016. City of Perris. Available from: https://www.cityofperris.org/home/showpublisheddocument/2645/637455522835370000.

3.0 PROJECT DESCRIPTION

3.1 Introduction

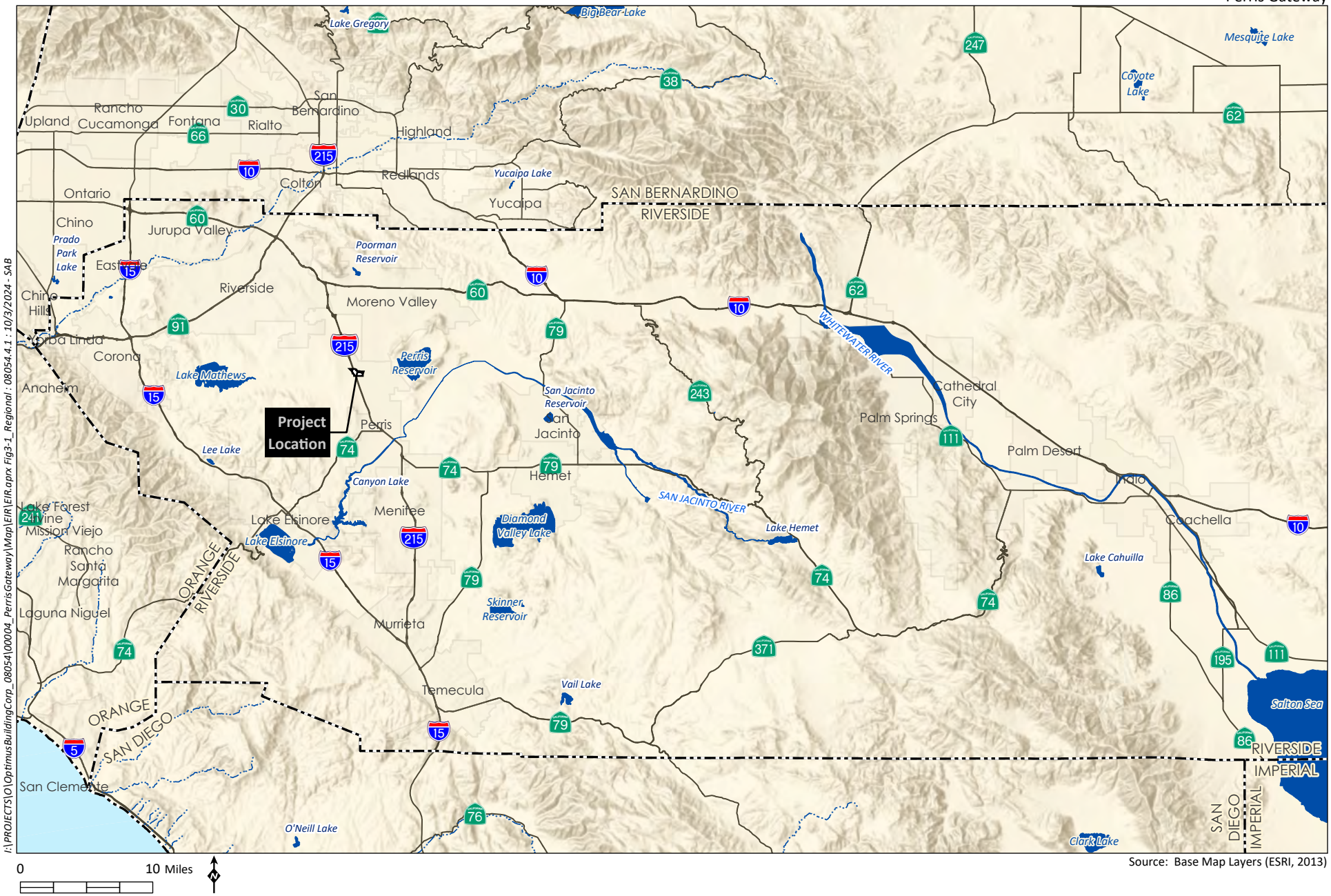
This section provides a brief background for the Project, followed by a detailed description of the Project and its environmental setting, pursuant to Sections 15124 and 15125, respectively, of the State CEQA Guidelines. This includes a description of the Project location, geographic setting, environmental setting, Project objectives, Project components, and discretionary actions required to implement the Project. The Project description is used as the basis for analyzing the Project's potential impacts on the existing physical environment in this Draft EIR.

3.2 Project Background

The proposed Project site is within the PVCC area of the City and is therefore subject to the PVCCSP. The PVCCSP land uses allow for the development of approximately 3,500 acres of land with industrial, business/professional office, commercial, residential, and public uses. An EIR was prepared for the Optimus Logistics Center and certified by the City of Perris City Council on January 12, 2016. The Project site was included in the study area of the Optimus Logistics Center EIR; however, no specific development plan was proposed for the Project site. Rather, speculative shopping center uses including 220,520 square feet of development were analyzed as a potential use for two of the Project site parcels for the Optimus Logistics Center EIR. No development was proposed or analyzed on the third, westernmost parcel of the Project site since this area was reserved for a future Ramona Expressway on-ramp alignment for Alternative 9 of the Riverside County Transportation Commission's Mid-County Parkway project.

3.3 Project Location

The Project site (Assessor's Parcel Numbers 314-170-020, 314-170-023, and 314-180-024) is located within the western portion of the PVCC area and includes approximately 20 acres (20.28 acres) of vacant land. It is located adjacent to Interstate (I-) 215, approximately 6.5 miles south of State Route (SR) 60, and approximately one mile south of March Air Reserve Base/Inland Port Airport (March ARB/IPA). Figure 3-1, *Regional Location*, depicts the Project site in relation to the region. Figure 3-2, *Aerial Photograph*, depicts the existing developed and undeveloped conditions at and surrounding the Project site. As shown, the Project site is located north of Ramona Expressway, west of Webster Avenue, and east of I-215.



Source: Base Map Layers (ESRI, 2013)

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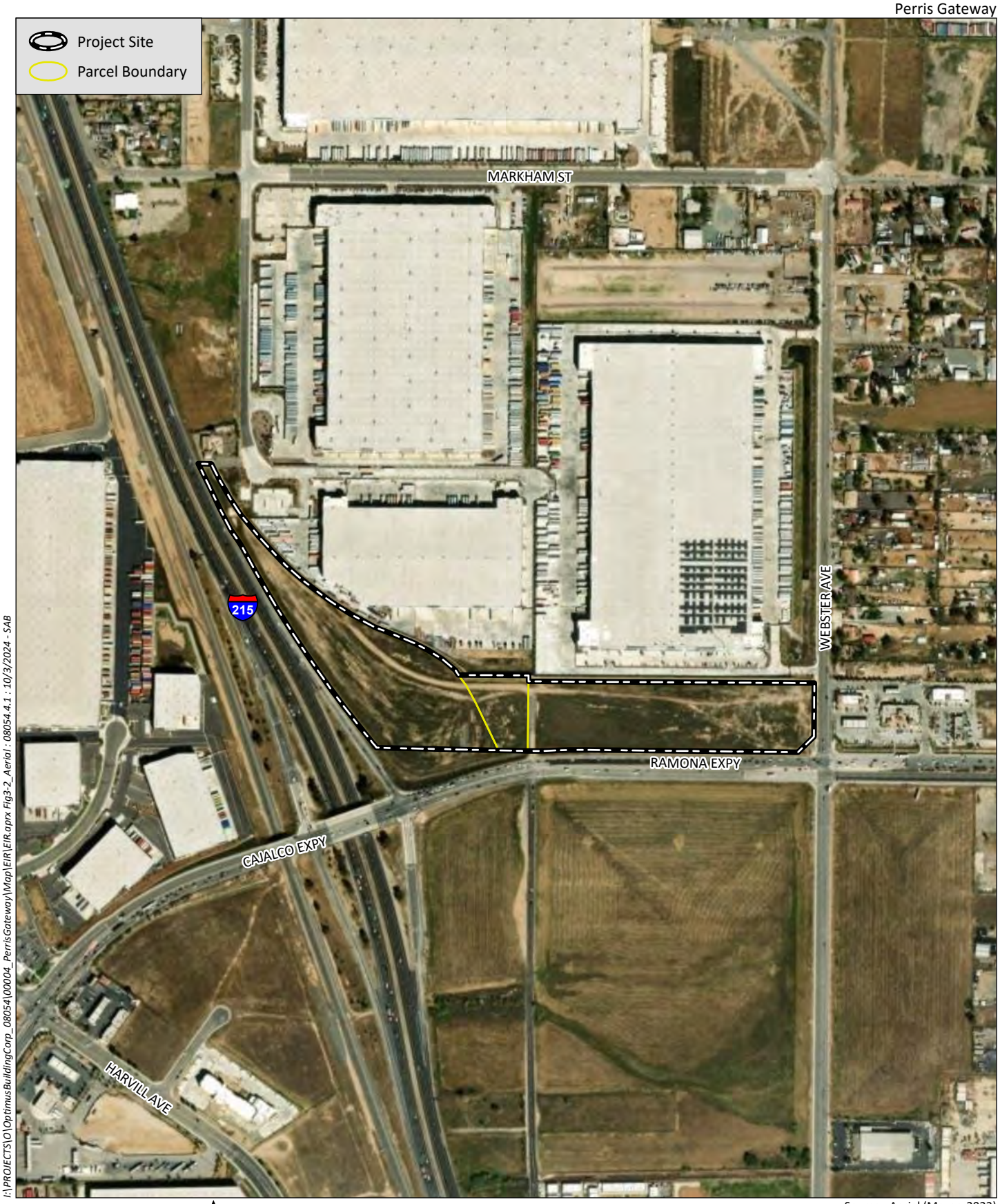
HELIX Environmental Planning

Regional Location

Figure 3-1



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0 600 Feet

Source: Aerial (Maxar, 2022)

HELIX Environmental Planning

Aerial Photograph

Figure 3-2

3.4 Environmental Setting

The Project site is located within Planning Area 1: North Industrial as identified in the City of Perris General Plan Land Use Element. This area is generally made up of "industrial" land use designations and uses. While there are some residential uses in this area, the majority of land uses are non-residential. There are no schools or parks. This area is near March ARB/IPA, and future land uses could include air-cargo support and air-cargo dependent businesses. Noise-sensitive uses that would be disturbed by air cargo or military plane overflights, such as residential development, should be discouraged. Heavy truck traffic can be expected in this area, affecting future roadway design and maintenance.

The PVCCSP EIR provides a description of the environmental and regulatory setting for the entire PVCC area, including the Project site. Except for the termination of agricultural activities and the construction of development anticipated within the PVCC area, the physical setting description for the Project site and adjacent areas has not notably changed since the PVCCSP EIR was certified in 2012. Similarly, the Project setting described in the Optimus Logistics Center EIR for the Project site remains consistent with current conditions, as the Project site has not been developed. Industrial uses as analyzed in the Optimus Logistics Center EIR were developed north of the Project site in 2018.

The City is within the Perris Block geologic unit, which lies within the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province is characterized by a series of northwesterly trending mountain ranges that extend from the coast of California eastward into the California desert and south to the tip of Baja California, Mexico. The Perris Block is bound on the northeast by the San Jacinto Fault, on the north by the Cucamonga Fault and the San Gabriel Mountains, and on the southwest by the Elsinore Fault and the Santa Ana Mountains. The City of Moreno Valley borders the City to the north and the City of Menifee borders the City to the south. Unincorporated areas of Riverside County border the City to the east and west.

The Project site can generally be characterized as disturbed vacant land that was previously used for agricultural purposes. The Project site is generally flat with an elevation between 1,480 and 1,500 feet above mean sea level. Stormwater runoff generally flows from northwest to southeast within the western two parcels and southwest to northeast on the eastern parcel. Runoff outfalls to a catch basin at the northeast corner of the Project site and flows into Line E of the Perris Valley Storm Drain System, which is owned and maintained by the Riverside County Flood Control and Water Conservation District and runs in an east-west direction along Ramona Expressway.

The land uses surrounding the Project site include a mix of undeveloped and developed areas. Surrounding land uses include the Optimus Logistics Center to the north, residential land uses to the northeast, commercial development to the east, currently undeveloped areas to the south, and I-215 to the west. The vacant parcels south of the Project site along Ramona Expressway are designated in the PVCCSP for commercial land uses, as described below.

The existing City of Perris General Plan land use designation and zoning for the Project site is PVCC SP - Perris Valley Commerce Center Specific Plan. The PVCCSP establishes the zoning for the properties within the PVCC area. As shown on Figure 3-3, *PVCCSP Land Use Designations*, the PVCCSP designation for the Project site is Commercial. Commercial land use designations are also identified immediately to the east and south of the Project site. Light Industrial designations occur along the northern property boundary and further to the north, as well as to the southeast. The small parcel located at the northernmost Project site boundary currently contains a distribution center and is designated as Business Professional Office in the PVCCSP, and the parcels northeast of the Project site are designated as Residential in the PVCCSP.

0 250 Feet

Source: Aerial (Maxar, 2022)

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HELIX Environmental Planning

PVCCSP Land Use Designations

Figure 3-3

The Project site is located approximately one mile south of March ARB/IPA and is located within the March ARB/IPA Airport Influence Area Boundary. The PVCCSP includes an Airport Overlay Zone (AOZ) which defines specific land uses corresponding generally with the boundaries and provisions of the 2014 March ARB/IPA Airport Land Use Compatibility Plan (ALUCP) and airport influence area. The Project site is within Airport Compatibility Zone C1 (Primary Approach/Departure Zone). Development within airport compatibility zones is restricted by the basic compatibility criteria provided in Table MA-2 of the 2014 March ARB/IPA ALUCP which is consistent with the safety and noise standards contained within the 2018 Air Installations Compatible Use Zones (AICUZ) Study. Airport Compatibility Zone C1 is a primary approach/departure zone with limited residential land uses and prohibits noise sensitive land uses and other uses which would cause hazards to flight.

The Project site is not within or adjacent to a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Area. It is not within an MSHCP Criteria Cell, Core, or Linkage Area. The Project site is also not in a survey area for mammals, amphibians, Criteria Area Plant Species Survey Area, or Narrow Endemic Plant Species Survey Area.

3.5 Project Objectives

The applicant's goals for the proposed Project are to provide for the development of local serving commercial uses in the northern portion of the City and to increase employment opportunities while providing development compatible with the March ARB/IPA ALUCP. Specifically, the Project would achieve its purpose and goals through the following objectives:

1. Develop and operate an attractive commercial project along Ramona Expressway that meets local demand for more social gathering places, services, and eateries in a currently underserved area of the PVCC area.

2. Provide additional job opportunities in a housing-rich area to improve the local jobs to housing balance.

3. Provide necessary infrastructure and utilities to adequately serve the proposed development.

4. Encourage land uses that will generate tax revenue for the City, including, but not limited to, increased sales tax, to support the City's ongoing municipal operations.

3.6 Project Components

The proposed Project involves City approval of a Specific Plan Amendment, Tentative Parcel Map, Development Plan Reviews, and Conditional Use Permits (CUPs), to allow the construction and operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash. The components of the Project are further described below.

3.6.1 Specific Plan Amendment

It is the intent of the PVCCSP to facilitate development of the PVCC area in an orderly and consistent fashion that is coordinated with the provision of necessary infrastructure and public improvements. Land use categories in the PVCCSP include Industrial, Business/Professional Office, Commercial, Residential, and Public. Zoning categories in the PVCCSP include General Industrial, Light Industrial, Business/ Professional Office, Commercial, Residential, Multi-Family Residential, and Public. The majority of the PVCC area is designated for Light Industrial and General Industrial development and the PVCCSP identifies areas along Ramona Expressway at the east and west ends of the PVCC boundary, including the Project site, for Commercial development. The Land Use Plan section of the PVCCSP that would be amended by the proposed Specific Plan Amendment is described below. No other Specific Plan amendments are proposed.

Section 2.0 of the PVCCSP contains the Land Use Plan, and defines land use categories and zones throughout the PVCC area and details permitted, conditionally permitted, accessory, and prohibited uses for each zone. The PVCCSP designates the Project site as a Commercial land use and zone, which is defined as a zoning designation that provides for retail, professional office, and service-oriented business activities that serve the entire City, as well as the surrounding neighborhoods. The proposed amendment to the PVCCSP would add self-storage facilities to the list of permitted uses within the Commercial land use designation provided in Table 2.0-2 of the PVCCSP. The environmental analysis contained in this Draft EIR addresses the effects of the proposed self-storage facility within the Commercial land use area of the Project site and does not address impacts associated with speculative development of self-storage facilities on other sites with existing Commercial land use designations. However, the addition of self-storage uses to the Commercial land use designation would not increase the overall intensity of the Commercial land use designation because self-storage uses have a lower trip generation rate than other Commercial uses (Institute of Transportation Engineers 2021). As a result, the addition of self-storage uses would not result in inconsistencies with land use plans or conformance planning.

3.6.2 Tentative Parcel Map

The Project applicant is requesting approval of a Tentative Parcel Map to re-subdivide the existing three-parcel Project site into eight parcels. As shown in Figures 3-4a and 3-4b, *Tentative Parcel Map*, these parcels would range in size from 0.936 net acre to 6.847 net acres. The subdivision of the site into these separate parcels would provide for the separation of proposed land uses and future ownership changes.

IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

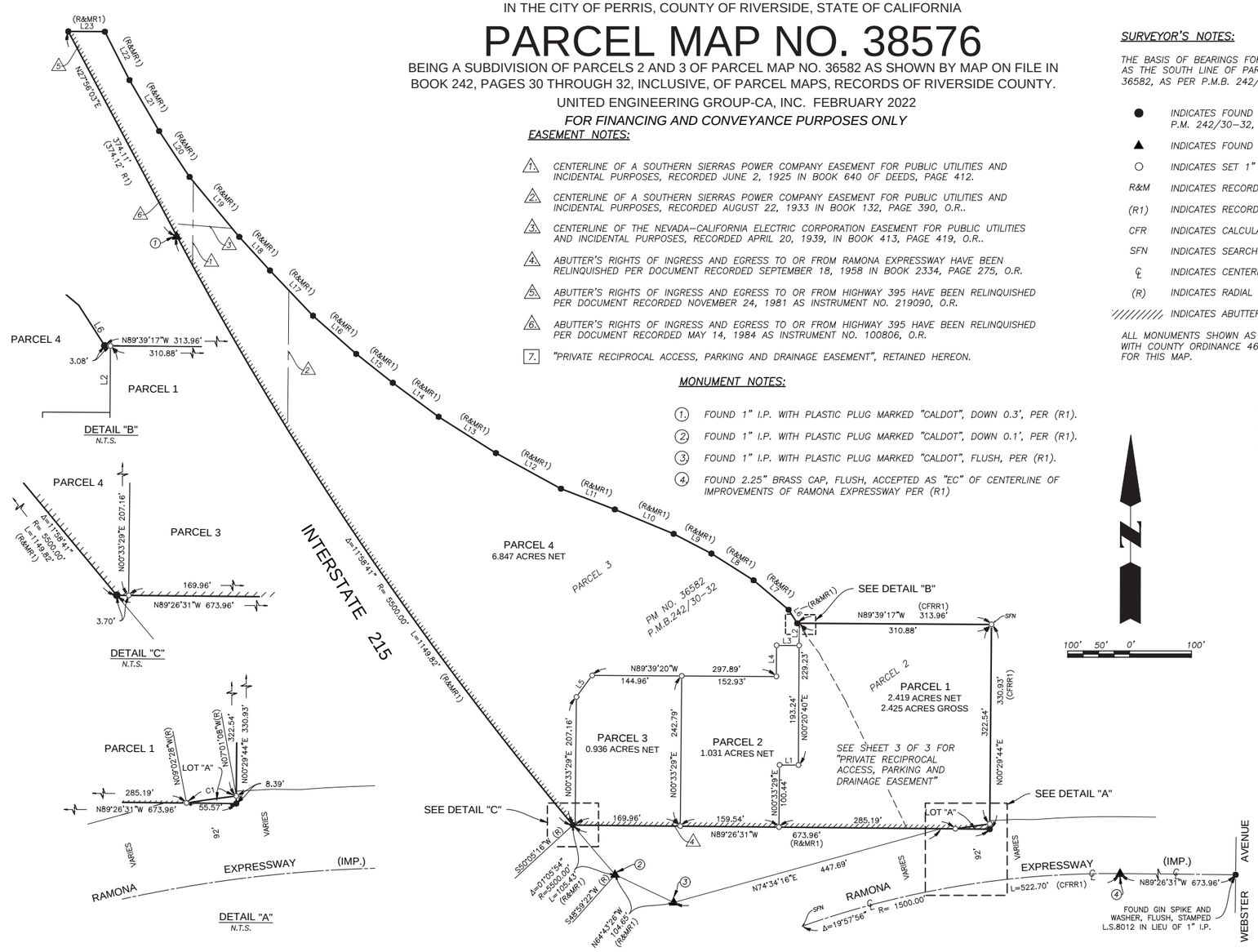
PARCEL MAP NO. 38576

BEING A SUBDIVISION OF PARCELS 2 AND 3 OF PARCEL MAP NO. 36582 AS SHOWN BY MAP ON FILE IN BOOK 242, PAGES 30 THROUGH 32, INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY.

UNITED ENGINEERING GROUP-CA, INC. FEBRUARY 2022

FOR FINANCING AND CONVEYANCE PURPOSES ONLY

SHEET 2 OF 3



EASEMENT NOTES:

1. CENTERLINE OF A SOUTHERN SIERRAS POWER COMPANY EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JUNE 2, 1925 IN BOOK 640 OF DEEDS, PAGE 412.
2. CENTERLINE OF A SOUTHERN SIERRAS POWER COMPANY EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 22, 1933 IN BOOK 132, PAGE 390, O.R..
3. CENTERLINE OF THE NEVADA–CALIFORNIA ELECTRIC CORPORATION EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED APRIL 20, 1939, IN BOOK 413, PAGE 419, O.R..
4. ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM RAMONA EXPRESSWAY HAVE BEEN RELINQUISHED PER DOCUMENT RECORDED SEPTEMBER 18, 1958 IN BOOK 2334, PAGE 275, O.R.
5. ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM HIGHWAY 395 HAVE BEEN RELINQUISHED PER DOCUMENT RECORDED NOVEMBER 24, 1981 AS INSTRUMENT NO. 219090, O.R.
6. ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM HIGHWAY 395 HAVE BEEN RELINQUISHED PER DOCUMENT RECORDED MAY 14, 1984 AS INSTRUMENT NO. 100806, O.R.
7. "PRIVATE RECIPROCAL ACCESS, PARKING AND DRAINAGE EASEMENT", RETAINED HEREON.

MONUMENT NOTES:

1. FOUND 1" I.P. WITH PLASTIC PLUG MARKED "CALDOT", DOWN 0.3', PER (R1).
2. FOUND 1" I.P. WITH PLASTIC PLUG MARKED "CALDOT", DOWN 0.1', PER (R1).
3. FOUND 1" I.P. WITH PLASTIC PLUG MARKED "CALDOT", FLUSH, PER (R1).
4. FOUND 2.25" BRASS CAP, FLUSH, ACCEPTED AS "EC" OF CENTERLINE OF IMPROVEMENTS OF RAMONA EXPRESSWAY PER (R1)

SURVEYOR'S NOTES:

THE BASIS OF BEARINGS FOR THIS SURVEY IS N 89°26'31" W, SHOWN AS THE SOUTH LINE OF PARCELS 2 AND 3 ON PARCEL MAP NO. 36582, AS PER P.M.B. 242/30–32.

●	INDICATES FOUND 1" I.P. WITH NAIL & TAG, L.S. 8012 PER P.M. 242/30–32, UNLESS NOTED OTHERWISE.
▲	INDICATES FOUND MONUMENT AS NOTED.
○	INDICATES SET 1" I.P., TAGGED L.S. 6974
R&M	INDICATES RECORD & MEASURED
(R1)	INDICATES RECORD DATA PER P.M.242/30–32.
CFR	INDICATES CALCULATED FROM RECORD
SFN	INDICATES SEARCHED, FOUND NOTHING
℄	INDICATES CENTERLINE
(R)	INDICATES RADIAL BEARING
//////////	INDICATES ABUTTER'S RIGHTS RELINQUISHED

ALL MONUMENTS SHOWN AS "SET" SHALL BE SET IN ACCORDANCE WITH COUNTY ORDINANCE 461.10 AND THE MONUMENT AGREEMENT FOR THIS MAP.

CURVE TABLE

CURVE #	DELTA	RADIUS	LENGHT	TANGENT
C1	02°01'20"	1592.00'	56.19'	28.10'

LINE TABLE

LINE #	LENGTH	BEARING
L1	30.37'	N89°39'20"W
L2	35.99'	N00°20'40"E
L3	36.45'	N89°39'20"W
L4	50.29'	N00°20'40"E
L5	43.09'	N36°01'25"E
L6	26.01'	N32°38'51"W
L7	73.98'	N49°57'26"W
L8	80.70'	N57°37'43"W
L9	68.90'	N62°30'04"W
L10	102.87'	N67°26'31"W
L11	93.53'	N68°57'39"W
L12	119.79'	N61°15'53"W
L13	109.51'	N57°38'44"W
L14	92.36'	N53°28'24"W
L15	75.37'	N51°39'44"W
L16	93.15'	N48°36'22"W
L17	100.92'	N43°33'34"W
L18	73.44'	N42°24'15"W
L19	125.95'	N39°39'38"W
L20	88.95'	N33°36'49"W
L21	95.38'	N30°12'04"W
L22	87.81'	N26°52'30"W
L23	59.24'	N89°35'56"W

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Source: Optimus Building Corp, 2024

Tentative Parcel Map – Western Site

Figure 3-4a

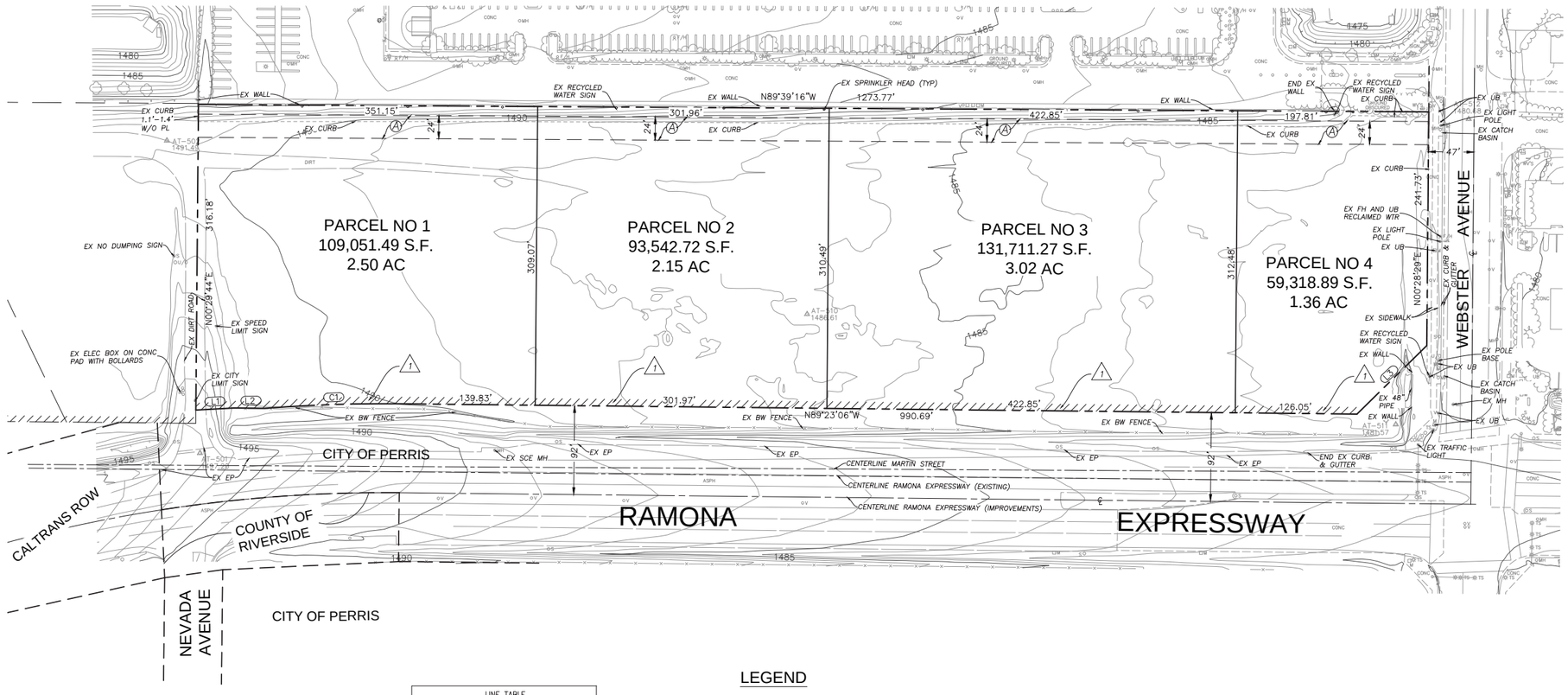
TENTATAVE PARCEL MAP NO. 38985

IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

UNITED ENGINEERING GROUP CA., INC APRIL 2024

FOR FINANCE AND CONVEYANCE PURPOSES ONLY

A FUTURE SUBDIVISION MAP, OR LAND USE ENTITLEMENT OR PERMIT IS NECESSSARY TO DEVELOP THIS PROPERTY. THIS MAP DOES NOT REMOVE ANY CONDITIONS OF APPROVAL FOR SEPARATE LAND USE ENTITLEMENTS OR TENTATIVE MAPS OR USE PERMITS APPROVED FOR THIS LAND.



LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.71'	N86°54'01"E
L2	31.91'	N89°26'31"W
L3	101.23'	N45°32'41"E

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C1	1592.00'	140.15'	5°02'38"

60' 30' 0' 60'

BENCHMARK:

NGS DATA POINT
DESIGNATION–432:PID–DX5439
3 ½" ALUMINUM DISC STAMPED "BM 432"
SW COR PERRIS BLVD AND RIDER ST, BASE OF STEEL SIGNAL LIGHT, 3.5' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEV = 1455.11 (NAVD88)

LEGEND

CL	CHAIN LINK
ROW	RIGHT–OF–WAY
PP	POWER POLE
BW	BARBED WIRE
EP	EDGE OF ASPHALT PAVEMENT
GW	GUY WIRE
UB	UTILITY BOX
MH	MANHOLE
V	VALVE
U/O	UNIDENTIFIED OBJECT
S	SIGN
M	METER
TS	TRAFFIC SIGNAL
CONC	CONCRETE
ASPH	ASPHALT
AB	ASPHALT BERM
F/H	FIRE HYDRANT
CF	CURB FACE
TSB	TRAFFIC SIGNAL BOX
TSP	TRAFFIC SIGNAL POLE
— 2334 —	INDICATES CONTOUR ELEVATION
— - - - —	PROJECT BOUNDARY
//////////	INDICATES ABUTTER'S RIGHTS RELINQUISHED

SURROUNDING LAND USE

NORTH:	PERRIS VALLEY COMMERCE CENTER SP (LIGHT INDUSTRIAL)
SOUTH:	PERRIS VALLEY COMMERCE CENTER SP (COMMERCIAL)
EAST:	PERRIS VALLEY COMMERCE CENTER SP (COMMERCIAL)
WEST:	PERRIS VALLEY COMMERCE CENTER SP (COMMERCIAL)

EXISTING & PROPOSED LAND USE:

PERRIS VALLEY COMMERCE CENTER SP

PARCEL #	EXIST LAND USE	PROPOSED LAND USE
1	COMMERCIAL	COMMERCIAL
2	COMMERCIAL	COMMERCIAL
3	COMMERCIAL	COMMERCIAL
4	COMMERCIAL	COMMERCIAL

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Source: United Engineering Group, 2024

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Tentative Parcel Map – Eastern Site

Figure 3-4b

3.6.3 Conditional Use Permits

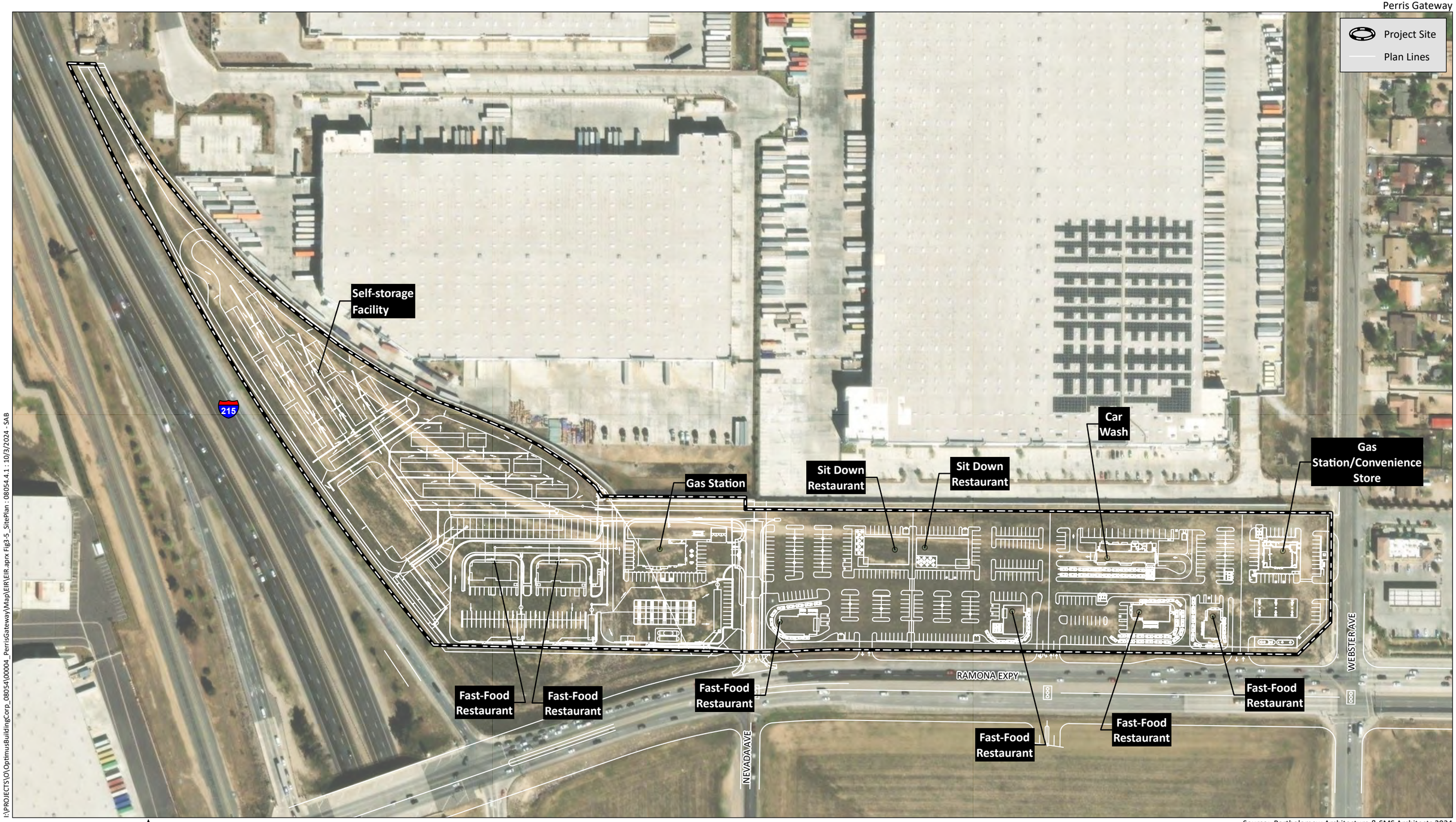
The Project applicant proposes the development and operation of a self-storage facility, six fast-foot restaurants, including drive-through services, and two gas stations with a total of 32 fueling stations and associated convenience stores with alcohol sales. With approval of the proposed Specific Plan Amendment, the proposed self-storage uses would be conditionally allowed within the Commercial land use designation. Drive-through restaurant and fueling land uses are allowed within the Commercial land use designation but also require approval of a CUP prior to operation. Therefore, the Project requires approval of three CUPs; one for the operation of self-storage uses, one for drive-through services, and one for gas station uses including convenience stores with alcohol sales.

3.6.4 Development Plan Review

The proposed Project involves the development of a commercial center including a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash, along the northern side of Ramona Expressway. Figure 3-5, *Site Plan*, shows the proposed development. In total, the Project involves the development and operation of 126,342 square feet of building area across these uses. Specifically, the Project would include 80,478 square feet of self-storage use across 22 buildings, two 6,000-square-foot sit-down restaurants, six drive-through fast-food restaurants comprised of 18,400-square-foot building area, 32 vehicle fueling positions across two gas stations including 10,039 square feet of convenience store uses, and a 5,425-square-foot automated car wash building.

The two western parcels are separately owned from the easternmost parcel and were submitted for separate Development Plan Review. The two western parcels are referred to as the “western site” and the eastern parcel encompasses the “eastern site”. These identifiers for the ownership differences within the Project site provide differentiation for the purposes of the Development Plan Review by the City. Unless otherwise specified, the descriptions and analysis in this Draft EIR apply to the entirety of the three parcels referred to as the Project site. Elements of the Project specific to the Development Plan for the western site and eastern site are noted where necessary.

In general, the architectural style of the proposed structures would be contemporary. The buildings would be constructed of plaster walls with accents of sustainable and natural materials. The exterior color palette would be comprised of various neutral shades, including whites, tans, greys, blues, and blacks, with occasional accent tones. The proposed buildings would be a maximum of 45 feet in height above the exterior finished grade. The architectural elements and landscaping would avoid monotony and repetition in building elevations and would minimize glare. Rooftop equipment would be screened and not visible from the street. Figures 3-6a through 3-6d, *Commercial Building Elevations*, provide representative elevations of the style of the proposed commercial buildings for the restaurant, convenience store, and car wash uses. Figure 3-7, *Self-Storage Building Elevations*, shows the proposed style of the self-storage buildings, and Figure 3-8, *Freeway Line-of-Sight to Self-Storage*, shows the line-of-sight from I-215 to the self-storage facility.



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0 200 Feet

Source: Bartholomew Architecture & SMS Architects 2024

HELIX Environmental Planning

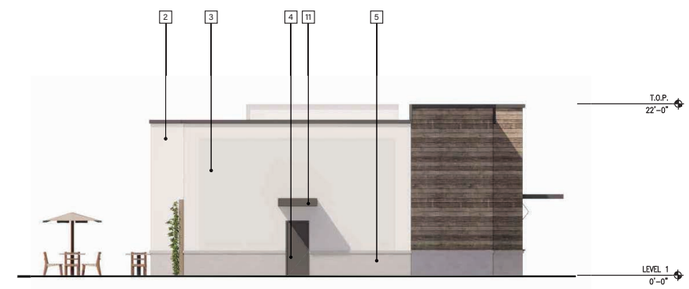
Site Plan

Figure 3-5

A - NORTH ELEVATION

B - EAST ELEVATION

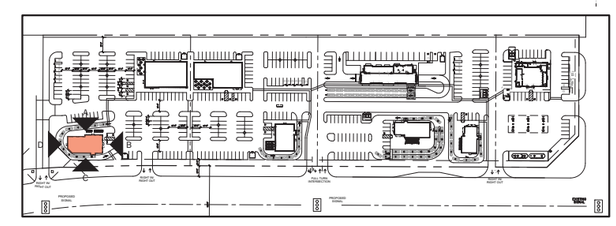
C - SOUTH ELEVATION



D - WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

Source: SMS Architects, 2024

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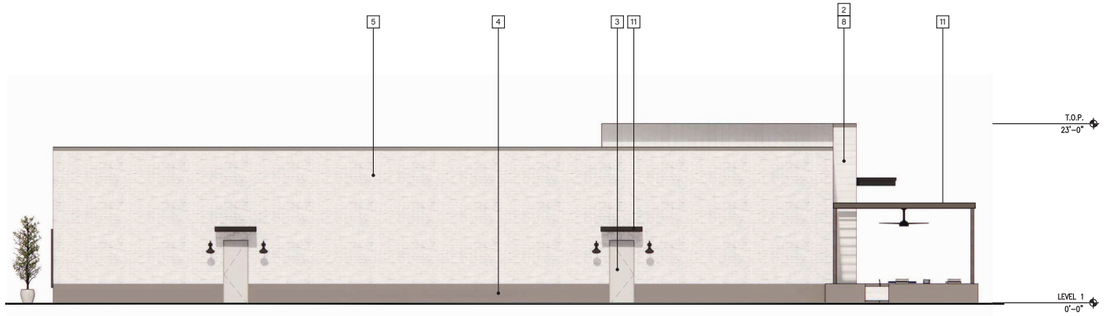
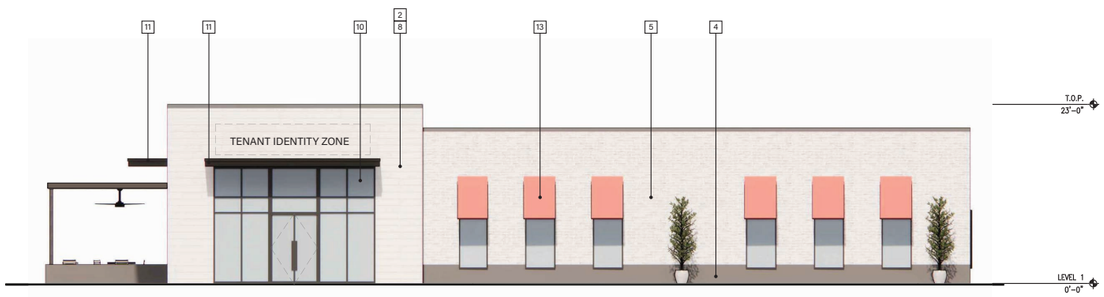
Commercial Building Elevations - Building 1

Figure 3-6a



A - NORTH ELEVATION

B - EAST ELEVATION

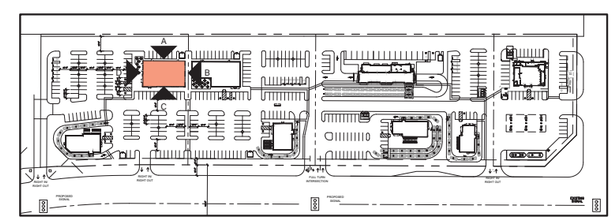


C - SOUTH ELEVATION

D - WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

Source: SMS Architects, 2024

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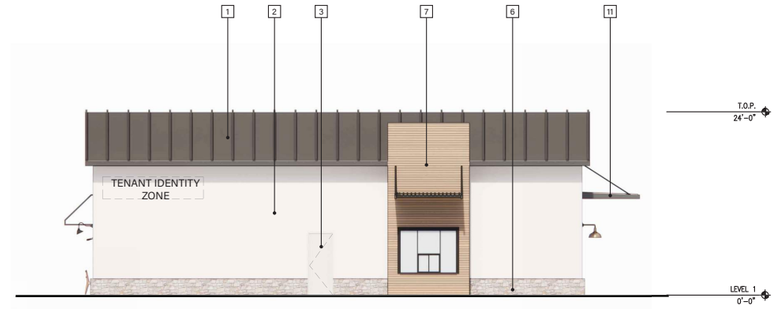
HELIX Environmental Planning

Commercial Building Elevations - Building 2

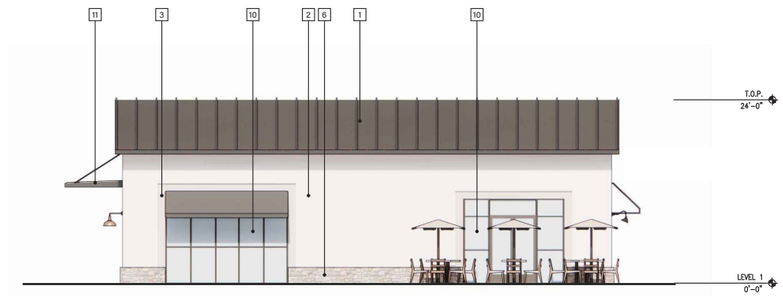
Figure 3-6b

A - NORTH ELEVATION



B - EAST ELEVATION

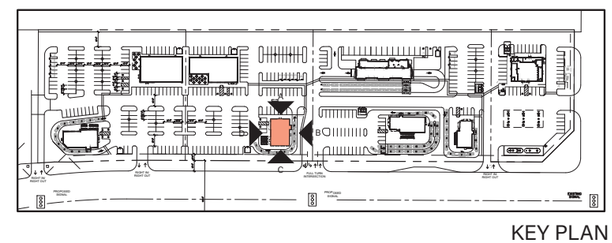
C - SOUTH ELEVATION



D - WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

Source: SMS Architects, 2024

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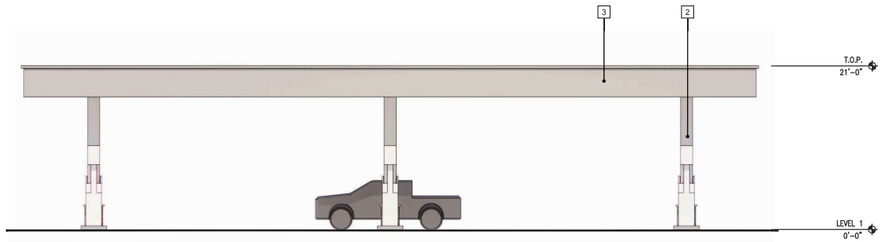
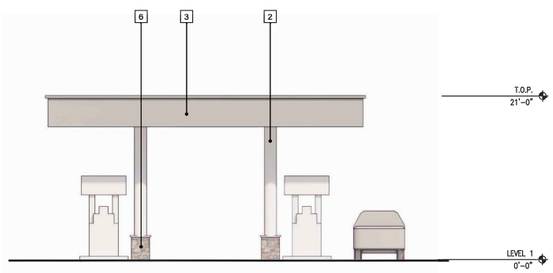
HELIX Environmental Planning

Commercial Building Elevations - Building 4

Figure 3-6c



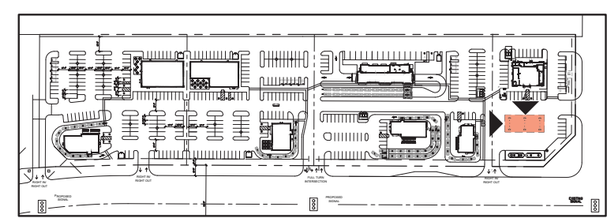
A - NORTH/SOUTH ELEVATION



B - EAST/WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

Source: SMS Architects, 2024

I:\PROJECTS\O\OptimusBuildingCorp_08054\000004_PerrisGateway\Map\EIR\Fig3-6d_Elevations.indd 08054.4.1 5/13/2024 - SAB

HELIX Environmental Planning

Commercial Building Elevations - Gas Station

Figure 3-6d

North Elevation

West Elevation

South Elevation

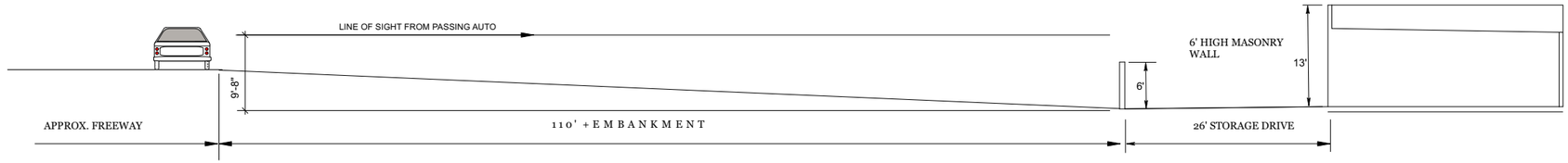
East Elevation

Source: HPA Architecture, 2024

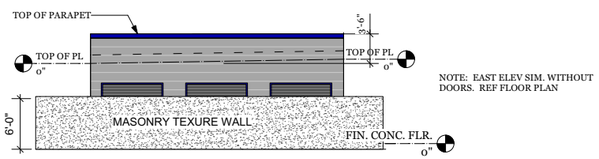
I:\PROJECTS\O\OptimusBuildingCorp_08054\00004_PerrisGateway\Map\EIR\Fig3-7_SelfStorageElev.indd 08054.4.1 1/29/2024 - SAB

Self-Storage Building Elevations

Figure 3-7



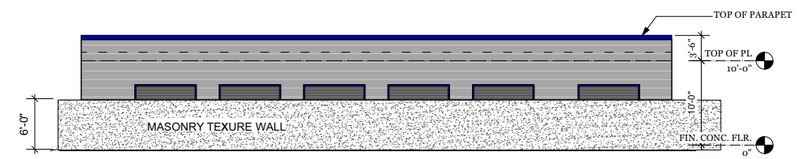
SECTION THRU FREEWAY - EMBANKMENT - SELF STORAGE FACADE
Scale: 1/8" = 1'-0"



NOTE: EAST ELEV SIM. WITHOUT DOORS. REF FLOOR PLAN

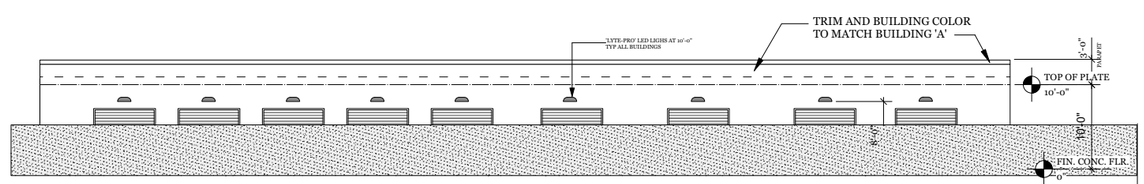
VIEW FROM FRWY 215-WEST VIEW FROM FWY

E-1 / A-10 WEST ELEVATION-BLDG D
Scale: 1/8" = 1'-0"



VIEW FROM FRWY 215-SOUTH VIEW FROM ENTRY RAMP

C-1 / A-10 SOUTH ELEVATION-BLDG D
Scale: 1/8" = 1'-0"



B-1 / A-9 SOUTH ELEV- BLDG C
Scale: 1/8" = 1'-0"

FREEWAY FACING BUILDING 'C' ELEVATION

NOTE: PARAPET EXISTS ON ELEVATION FACING FREEWAY

I:\PROJECTS\O\OptimusBuildingCorp_08054\00004_PerrisGateway\Map\EIR\Fig3-8_FreewayLineofSight.indd 08054.4.15/13/2024-SAB

Source: Bartholomew Architecture, 2024

HELIX Environmental Planning

Freeway Line-of-Sight to Self-Storage

Figure 3-8

3.6.4.1 Access, Circulation, and Parking

Vehicular Circulation

The Project has been designed to comply with applicable PVCCSP standards and guidelines to minimize vehicular conflict and to provide shared access. Vehicular access to the Project site would be provided via four driveways along Ramona Expressway and two driveways along Webster Avenue. Two of the driveways along Ramona Expressway and one of the driveways along Webster Avenue would be right-in, right-out only and the remaining intersections would be full access driveways. Intersection geometry is described in further detail for each driveway below. The proposed Project would include roadway improvements for Ramona Expressway and Webster Avenue. In addition, a curb cut between Project Driveways 3 and 4 would be provided to accommodate a future bus stop planned by the Riverside Transit Agency (RTA) in accordance with PVCCSP EIR mitigation measures MM Air 18 and MM Trans 4. Off-site improvements that would be partially funded by the Project's required development impact fees would undergo separate environmental review as they are proposed for construction.

Ramona Expressway is an east-west oriented roadway located along the Project site's southern boundary. Ramona Expressway would be improved to its ultimate half-section pavement width as an Expressway (184-foot right-of-way) from Nevada Avenue to Webster Avenue, consistent with the City's Standards. The outermost westbound lane would be a trap right-turn lane onto Nevada Avenue until the receiving lane to the west of Nevada Avenue is constructed.

Webster Avenue is a north-south oriented roadway located along the Project site's eastern boundary. Webster Avenue is currently constructed at its ultimate half-section pavement width as a Secondary Arterial (94-foot right-of-way) consistent with the PVCCSP and the City of Perris General Plan Circulation Element. No expansion of Webster Avenue would occur, but improvements along the curb, gutter, and sidewalk would occur to accommodate Project driveways.

The proposed Project would include site access improvements from Ramona Expressway and Webster Avenue via six driveways, described in detail below.

Driveway 1 at Nevada Avenue and Ramona Expressway – Install a traffic signal and construct the intersection with the following geometrics:

- Northbound Avenue: Not Applicable (N/A)
- Southbound Approach (Project Driveway 1): One left turn lane and a shared through-right turn lane.
- Eastbound Approach: Left turn lane to be modified to provide a minimum of 300 feet of storage.
- Westbound Approach: Right-turn trap-lane until Ramona Expressway is constructed to its full-width, at which time a third through-lane could be constructed with the addition of a receiving lane along Ramona Expressway from Driveway 1.

Driveway 2 at Ramona Expressway – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach (Project Driveway 2): One right turn only lane

- Eastbound Approach: N/A
- Westbound Approach: Shared through-right turn lane

Driveway 3 at Ramona Expressway – Install a traffic signal aligned with future development south of Ramona Expressway and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach (Project Driveway 3): Left turn lane and shared through-right turn lane
- Eastbound Approach: Left turn lane with a minimum of 225 feet of storage
- Westbound Approach: Shared through-right turn lane

Driveway 4 at Ramona Expressway – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach (Project Driveway 4): One right turn only lane
- Eastbound Approach: N/A
- Westbound Approach: Shared through-right turn lane

Driveway 5 at Webster Avenue – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: Left turn lane with a minimum of 100 feet of storage
- Southbound Approach: N/A
- Eastbound Approach (Project Driveway 5): Shared left-through-right turn lane
- Westbound Approach: N/A

Driveway 6 at Webster Avenue – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach: N/A
- Eastbound Approach (Project Driveway 6): One right turn only lane
- Westbound Approach: N/A

Where roadway improvements are required, roadways adjacent to the Project site, site access points, and site-adjacent intersections would be constructed to be consistent with the identified roadway classification and respective cross-sections in the PVCCSP or the City of Perris General Plan Circulation Element.

Non-Vehicular Circulation

The City's Circulation Element recommends a Class IV bike lane along the site's Ramona Expressway frontage, a Class II bike lane along the site's Webster Avenue frontage, and a Class I Bike path along Nevada Avenue south of the Project site. A meandering walkway would be installed along the Project's Ramona Expressway frontage. The buildings are proposed to be oriented so that entrances and entry access points are easily identified from a distance by pedestrians and/or vehicular traffic. Furthermore, crosswalks would be installed at intersections and within parking areas to ensure pedestrian safety.

Parking

The Project has been designed to comply with Sections 4.2.2.4 and 7.2.1.3 of the PVCCSP and Chapter 19.69 of the Perris Municipal Code related to parking requirements. Parking for customers of the commercial uses would be dispersed throughout the site between and surrounding the proposed businesses. The Project would include a total of 486 automobile parking stalls onsite, which would comply with the requirements outlined in the Perris Municipal Code. Automobile parking would consist of standard spaces, van accessible spaces, clean air/vanpool/electric vehicle spaces and accessible spaces. Pursuant to Section 5.106.5.3.1 of the 2022 California Green Building Standards Code (CALGreen), 98 of the automobile parking spaces (20 percent of total) would be capable of supporting electric vehicle charging infrastructure and 25 percent of those designated parking spaces (25 spaces) would provide infrastructure for the charging of electric vehicles at the time that the Project opens.

3.6.4.2 Landscape, Lighting, and Screen Walls

Landscape and Hardscape

The PVCCSP requires a minimum 10 percent landscape coverage for development in Commercial areas. The proposed Project includes landscape coverage of approximately 23 percent of the western site and approximately 10 percent of the eastern site. Landscape materials would include a variety of trees (e.g., for accent, screening, shade, and street), and shrubs (e.g., for accent, groundcover, screening). Proposed plant materials would have either low or moderate water needs and would be consistent with Section 6.1.3 of the PVCCSP, On-Site Plant Palette, or if approved by the City, plants that are consistent with California Friendly Landscape and that meet all minimum City of Perris Water Conservation Requirements, as defined in Chapter 19.70 of the Perris Municipal Code. The proposed landscaping plan would also be required to comply with the landscaping requirements of the current CALGreen Code at the time of permit issuance.

Lighting

Section 4.2.4 of the PVCCSP addresses lighting standards and guidelines, including general lighting, decorative lighting, and parking lot lighting standards. The Project would comply with applicable lighting standards and guidelines, and with lighting standards established by the City, the CALGreen Code, and Title 24 Energy Efficiency Standards. The Project would include lighting elements for safety and security of the proposed development. New sources of light would primarily include parking lot lighting, outdoor security lighting for the proposed buildings, and lighted signage. Lighting improvements on site would be shielded to avoid light pollution on neighboring properties and surrounding roadways, and to protect aircraft from glint and glare on final approach to March ARB/IPA.

Screen Walls

A six-foot-high masonry wall would be constructed along the western edge of the Project site adjacent to I-215. An existing screen wall along the northern edge of the Project site provides separation of the Project site and adjacent warehouse uses for privacy, noise control, and security. No alterations to this wall would occur as part of the proposed Project.

3.6.4.3 Utilities and Infrastructure

Utilities at the Project site would tie into existing utility systems in the Project vicinity and the Project developer(s) would construct the necessary connections to serve the Project. Specific service connections required for the Project are described in detail below.

Water and Wastewater Service

Water and wastewater service would be provided to the Project by the Eastern Municipal Water District (EMWD). An existing 12-inch water main and an existing 16-inch sewer main within Webster Avenue would serve the Project. The Project developer(s) would construct connections to these mains approximately 330 feet north of Ramona Expressway and the primary water and sewer lines serving the proposed buildings would run along north edge of the Project site with smaller laterals constructed throughout the site. The Project applicant would be required to pay applicable water and sewer connection fees in effect at the time of service connection.

Natural Gas Service

Natural gas service would be provided to the Project by the Southern California Gas Company (SoCalGas). Existing natural gas transmission pipelines and local service pipelines run within Webster Avenue and the Project is anticipated to make a connection to these pipelines within a developed easement east of Webster Avenue. The property owners would apply to SoCalGas to establish commercial customer connections to feed the commercial natural gas meters for the various uses proposed within the Project site. The final connection locations would be determined by SoCalGas.

Electric Service

Electric service would be provided to the Project by Southern California Edison (SCE). Electricity would be provided via a connection to the existing power supply east of Webster Avenue and the installation of power lines under the site to connect to various transformers throughout the Project site. The property owners would apply to SCE to establish commercial customer connections and these connections would feed commercial electric transformers and meters for various uses within the Project site. Telecommunications services are available from the same location and would be fed through the same pull box within the northeastern portion of the Project site.

Drainage

The Perris Valley Master Drainage Plan includes future storm drain and detention basins to capture surface runoff and convey it into underground storm drains before continuing to the Perris Valley Storm Drain system. Runoff from the Project site would be collected via underground storage facilities within each parcel, which would also provide water quality treatment. Surface runoff would be pumped from

each of the underground storage facilities to a bioswale, which would be used to treat runoff before flows from the Project site are outlet.

In addition to onsite runoff collection and treatment systems, the Project includes the installation of a 36-inch reinforced concrete storm drainpipe along Ramona Expressway that would accept and route off-site flows that drain to the southwest corner of the Project site. This off-site storm drainpipe would also function as the overflow path for onsite underground storage facilities. Off-site flows through this storm drainpipe would be carried to the east where they would outfall to the existing outlet at the southeast corner of the Project site. An existing headwall under Webster Avenue would be removed and replaced with a storm drain manhole.

3.6.5 Proposed Sustainability Features

The Project would meet or exceed all applicable standards under the CALGreen Code and the Building Energy Efficiency Standards contained in Title 24. The Project would implement concepts of efficient design and material use that are consistent with the U.S. Green Building Council's Leadership in Energy and Environmental Design green building rating system. This would be accomplished by incorporating, at a minimum, the following sustainability features or other features that are equally efficient:

Energy Efficiency

- Design building shells and components, such as windows, roof systems and electrical systems to meet California Title 24 Standards for nonresidential buildings.
- Install energy efficient light-emitting diodes (LED) lighting on the site. Provide skylights for natural daylight to reduce the lighting load, therefore saving energy. Lighting will incorporate motion sensors that turn them off when not in use.
- Meet City minimum landscape requirements and provide adequate landscape shade for the site to reduce energy use.
- Install light-colored roofing materials and light-colored paving materials.
- Refrigerants and HVAC equipment will be selected to minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change. Ventilation and HVAC systems will be designed to meet or exceed the minimum outdoor air ventilation rates described in the American Society of Heating, Refrigeration, and Air Conditioning Engineers standards and/or per California Title 24 requirements.
- Incorporate Energy Star® rated space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.

Water Conservation and Efficiency

- Surface parking lots will be landscaped in accordance with City standards to reduce heat island effect.

- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and sensors for landscaping according to the California Department of Water Resources Model Efficient Landscape Ordinance and Chapter 19.70 (Landscaping) of the Perris Municipal Code.

- Design buildings to be water-efficient. Install water-efficient fixtures in accordance with Section 5.303 of the California Green Building Standards Code Part 11.

- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff in accordance with City Standards.

- Provide education about water conservation and available programs and incentives to the building operators to distribute to employees.

Solid Waste

- Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1 of the CALGreen Code.

- Provide storage areas for recyclables and green waste and adequate recycling containers located in readily accessible areas in accordance with Section 5.410.1 of the CALGreen Code.

- The property operator will provide readily available information provided by the City for employee education about reducing waste and available recycling services.

Transportation and Motor Vehicles

- Limit idling time for commercial vehicles to no more than five minutes per Title 13 of the California Code of Regulations, Section 2485.

- Provide electric vehicle (EV) infrastructure and facilitate EV charging in accordance with 2022 CALGreen Code Section 5.106.5.3 Electric Vehicle Charging Requirements.

- Pursuant to Section 5.106.5.5.1 of the 2022 CALGreen Code, raceways, busways, and additional electrical capacity for transformers, service panels, or subpanels would be provided withing the warehouse building to facilitate the future installation of electric vehicle supply equipment for medium- and heavy-duty electric delivery trucks.

- Provide Class II bike lanes on Ramona Expressway, within the Project's frontage, per the City's Active Transportation Plan.

- Provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience in compliance with Section 5.106.4 of the 2022 CALGreen Code and standard City code requirements.

Construction

- Require Construction Equipment to Turn Off When Not in Use per Title 13 of the California Code of Regulations, Section 2449.

- Use regionally produced and/or manufactured building materials, where feasible, for Project construction.
- Use “green” building materials where feasible, such as those materials that are resource efficient and recycled and manufactured in an environmentally friendly way.
- Pursuant to Section 5.106.5.5.1 of the 2022 CALGreen Code, a minimum of 65% of the nonhazardous construction waste would be recycled or salvaged for reuse.

3.6.6 Project Operations

The proposed Project would involve the operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash. At the time of this analysis, the future owners and occupants of the proposed buildings were unknown. For the purposes of evaluation in this Draft EIR, the buildings are assumed to be operational 24 hours per day. Lighting would be subject to compliance with Perris Municipal Code Section 19.02.110 and would be fully shielded to preclude light pollution or light trespass on abutting residential land uses and public rights-of-way.

3.6.7 Construction Activities

Construction of the Project is anticipated to occur over an approximately 19-month period, requiring site preparation, grading, building construction, paving, and architectural coating activities. Construction of the Project would require common construction equipment. The site-specific construction fleet may vary due to specific needs at the time of construction; however, a summary of construction equipment assumptions by construction phase used for purposes of analysis is provided in Table 3-1, *Construction Equipment Assumptions*. The duration of construction activity and associated equipment was based on information provided by the Project applicant and represents a reasonable approximation of the expected construction fleet.

Table 3-1
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment	Number	Hours/Day
Site Preparation		
Rubber Tired Dozers	3	8
Crawler Tractors	4	8
Grading		
Excavators	2	8
Graders	1	8
Rubber Tired Dozers	1	8
Scrapers	2	8
Crawler Tractors	2	8
Building Construction		
Cranes	1	8
Forklifts	3	8
Generator Sets	1	8
Tractors/Loaders/Backhoes	3	8
Welders	1	8
Paving		
Pavers	2	8
Paving Equipment	2	8
Rollers	2	8
Architectural Coating		
Air Compressors	1	8

Source: Urban Crossroads 2024

Construction workers would travel to the Project site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Grading for the Project is anticipated to balance earthwork quantities onsite and would not require soil import or export.

Construction activity is regulated by Perris Municipal Code Section 7.34.060, which allows construction activities during daytime hours (between the hours of 7:00 am and 7:00 pm), Monday through Saturday, except for legal holidays. Construction equipment is expected to operate at the Project site up to eight hours per day during the allowed days and time period; however, the typical working hours for most construction contractors are 7:00 a.m. to 4:00 p.m., and construction equipment is not in continual use; each piece of equipment is used only periodically during a typical construction workday. Should construction activities need to occur outside of the hours permitted by the Perris Municipal Code, the Project developer would be required to obtain authorization from the City. Should onsite concrete pouring activities need to occur at night to facilitate proper concrete curing, pours would typically occur between the hours of 2:00 a.m. and 8:00 a.m.

Lights may be used within the construction areas, notably the construction staging areas, to provide security for construction equipment and construction materials. Further, in the event that construction-related activities occur during nighttime hours on the Project site, temporary, overhead artificial lighting would be provided to illuminate the work area.

3.7 Summary of Requested Actions

The City of Perris has primary approval responsibility for the Project and is the CEQA Lead Agency for the Project, pursuant to State CEQA Guidelines Section 15050. Because the Project requires a Specific Plan Amendment, the City of Perris City Council is the decision-making authority for the requested discretionary applications (e.g., the Specific Plan Amendment, Tentative Parcel Map, Development Plan Review, and CUPs). The City's Planning Commission will consider the Specific Plan Amendment, Tentative Parcel Map, Project Development Plan, CUPs, and the Final CEQA document and recommend to the City Council whether the Project and Final EIR should be approved and certified, respectively. The City Council will make the ultimate decision if the Final EIR should be certified and whether to approve, approve with changes, or deny the Project. In the event of approval of the Project, the City would subsequently conduct administrative reviews and issue ministerial permits and approvals to implement Project requirements and conditions of approval.

The Final EIR informs state, regional, and local government approvals needed for construction and/or operation of the Project, regardless of whether such actions are known at this time or explicitly listed. A list of the anticipated actions under City jurisdiction is provided in Table 3-2, *Project Related Approvals/Permits*. In addition, other actions may be necessary from other government agencies to fully implement the Project. Table 3-2 also lists the government agencies that may be required to use the Final EIR during their consultation and review of the Project and its implementing actions and provides a summary of the anticipated subsequent actions associated with the Project.

Table 3-2
PROJECT RELATED APPROVALS/PERMITS

Agency	Approvals and Decisions
Discretionary Approvals	
City of Perris City Council	• Certification of the Environmental Impact Report (SCH No. 2024080050) with the determination that the EIR has been prepared in compliance with the requirements of CEQA. • Specific Plan Amendment (SPA 22-05280) to add self-storage as a conditionally permitted use within the PVCCSP Commercial land use designation. • Tentative Parcel Map (TPM 22-05275 [38567]) to subdivide the existing two-parcel western site into four parcels. • Tentative Parcel Map (TPM 24-05150 [38985]) to subdivide the existing one-parcel eastern site into four parcels. • Development Plan Review (DPR 22-00028) to approve the proposed western site development plan. • Development Plan Review (DPR 23-00021) to approve the proposed eastern site development plan. • Conditional Use Permit (CUP 22-05295) to allow self-storage uses on the site, designated as Commercial under the PVCCSP. • Conditional Use Permit (CUP 24-05141) to allow drive-through services on the site, designated as Commercial under the PVCCSP. • Conditional Use Permit (CUP 24-05142) to allow gas station uses with alcohol sales for off-site consumption on the site, designated as Commercial under the PVCCSP.
Riverside County Airport Land Use Commission (ALUC)	• Consistency Review (Approved July 11, 2024)
Non-Discretionary Approvals	
City of Perris Development Services	• All onsite plans, including grading, drainage, and utilities • Water Quality Management Plan (WQMP)
Regional Water Quality Control Board (RWQCB)	• Issuance of a Construction Activity General Construction Permit • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit • Report of Waste Discharge or Water Quality Certification
South Coast Air Quality Management District (AQMD)	• Permits to construct and/or permits to operate new stationary sources of equipment that emit or control air contaminants, such as heating, ventilation, and air conditioning (HVAC) units, cooking equipment, and fuel dispensers.
Other Utility Agencies	• Permits and associated approvals, as necessary for the installation of new utility infrastructure or connections to existing facilities

3.8 References

Albert A. Webb Associates. 2011. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report. November 2011, certified January 10, 2012. Available at: https://www.cityofperris.org/Home/ShowDocument?id=2645.

Institute of Transportation Engineers. 2021. Trip Generation Manual, 11th Edition. September. Available at: https://www.ite.org/technical-resources/topics/trip-and-parking-generation/.

Urban Crossroads. 2024. Perris Gateway (DPR22-00028; CUP 22-05259; TPM 38567) Air Quality Impact Analysis. October 22.

4.0 ENVIRONMENTAL ANALYSIS

Introduction to the Environmental Analysis

Sections 4.1, *Air Quality*, and 4.2, *Greenhouse Gas Emissions*, of this Draft EIR provide analysis of potential impacts for those environmental topics where it was determined that the Project could result in "potentially significant impacts." Each topical section includes the following information:

- A description of the existing setting including a discussion of the regulatory framework, if applicable.
- Identification of thresholds of significance.
- Identification of applicable PVCCSP Standards and Guidelines if applicable.
- Analysis of potential Project effects.
- Identification of mitigation measures to reduce the identified Project impacts.
- Identification of the level of significance of impacts after mitigation, including unavoidable significant adverse impacts.
- Evaluation of potential cumulative impacts.

As described in Section 3.0, *Project Description*, of this Draft EIR, the Project involves City approval of a Specific Plan Amendment, Tentative Parcel Map, Development Plan Reviews, and CUPs to allow the construction and operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash. Unless otherwise noted, the analysis presented in Sections 4.1 and 4.2 of this Draft EIR addresses the entire Project. Distinctions between impacts from construction and operation of the Project are made where pertinent to the topical issue.

Summary of EIR Scope

In accordance with State CEQA Guidelines Sections 15126-15126.4, this Draft EIR Section includes analyses of potential direct, indirect, and cumulatively considerable impacts that could occur from planning, constructing, and/or operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study and Notice of Preparation were prepared to determine the scope of environmental analysis for this Draft EIR (refer to Appendix A). The City distributed the Initial Study and Notice of Preparation to public agencies and interested individuals and posted the documents on its website to solicit input on the scope of study for the Draft EIR. The City also held a Draft EIR Scoping Meeting to solicit input from the public on the scope of study for the Draft EIR. Taking all known information and public comments into consideration, two primary environmental subject areas are evaluated in detail in this Section 4.0: air quality (Section 4.1) and greenhouse gas emissions (Section 4.2). The subsections evaluate several specific topics related to the primary environmental subject. Refer to both subsections for a full account of the subject matters addressed therein.

As concluded by the Project's Initial Study (included in Appendix A of this Draft EIR) and after consideration of all comments received by the City on the scope of this Draft EIR and documented in the

City's administrative record, 18 environmental subjects were determined by the City not to be significantly impacted by the Project: aesthetics, agriculture and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. A summary of the reasons the Project would not result in a significant effect related to these subject is provided in Section 7.0, *Effects Found Not to be Significant*, and the complete Initial Study is provided in Appendix A.

Identification of Impacts

Sections 4.1 and 4.2 of this Draft EIR evaluate the two environmental subjects warranting detailed analysis as identified in the Project Initial Study and Notice of Preparation, and in consideration of public comments. Within these sections, the environmental setting is discussed first, followed by applicable regulations, CEQA thresholds of significance, and finally a discussion of the potential environmental impacts that would result from implementation of the Project (which is based on the specified thresholds of significance used as criteria to determine whether potential environmental effects would be significant).

The thresholds of significance used in this EIR are based on the thresholds presented in State CEQA Guidelines Appendix G and as applied by the City. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

The City of Perris, as Lead Agency for the Project, is responsible for determining whether an adverse environmental effect identified in this Draft EIR should be classified as significant or less than significant. The standards of significance used in this Draft EIR are based on the independent judgment of the City, taking into consideration State CEQA Guidelines Appendix G, the City of Perris General Plan, the Perris Municipal Code and adopted City policies, performance standards adopted, implemented, and monitored by regulatory agencies, and significance standards recommended by relevant regulatory agencies.

As required by State CEQA Guidelines Section 15126.2(a), Project-related effects on the environment are characterized in this Draft EIR as direct, indirect, cumulative, short-term, long-term, onsite, and/or off-site impacts. A summarized "impact statement" is provided in each subsection following the analysis. Each subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations) that the Project and its implementing actions are required to comply with (if any). Where impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. For the impacts identified as significant and unavoidable, the City would be required to adopt a statement of overriding considerations pursuant to State CEQA Guidelines Section 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

Assumptions Regarding Cumulative Impacts

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in State CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts" (State CEQA Guidelines Section 15130(a)(1)).

As defined in State CEQA Guidelines Section 15355:

> *'Cumulative impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*
>
> *a) The individual effects may be changes resulting from a single project or a number of separate projects.*
>
> *b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the Project alone (State CEQA Guidelines Section15130(b)).

State CEQA Guidelines Section 15130(b) describes two acceptable methods for conducting a cumulative impact analysis. These two approaches include: "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency ['the list of projects approach'], or (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency. ['the summary of projections approach']."

Primarily, the "summary of projections approach" is used for the Project's cumulative impact analysis, which is based on plans and reports from the South Coast Air Quality Management District (AQMD). Because of the nature of individual environmental factors, the cumulative area for the two topical issues is not the same. An explanation of the cumulative analysis, including the cumulative study area, is provided individually in Section 4.1 and Section 4.2.

Mitigation Program

The mitigation program identified for each topical issue to reduce potential Project impacts consists of mitigation measures from the PVCCSP EIR that were deemed applicable to the proposed Project. Additional project-specific mitigation measures are considered for significant impacts.

If the Project proponent requests a modification, substitution, or change in timing for a mitigation measure because the mitigation measure in current form proves to be impracticable or unworkable, the City may modify, substitute, or change the timing for the mitigation measure as long as: (1) the modification, substitution, or change in timing would achieve the same or greater reduction in potential impacts of the Project as the original mitigation measure; (2) the modification, substitution, or change would not cause any impacts that were not otherwise analyzed in this EIR; and (3) the City publicly provides a legitimate reason for making the modification, substitution, or change in timing and supports the reason with substantial evidence. The City of Perris Planning Division, in conjunction with any appropriate agencies or City departments, would determine the adequacy of any proposed modification, substitution, or change in timing and may refer its determination to the Planning Commission. The Project proponent would bear any costs associated with providing information that any department or decision-making body for the City requires to make the determination.

REFERENCES

Albert A. Webb Associates. 2011. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report SCH No. 2009081016. City of Perris. Available from: https://www.cityofperris.org/home/showpublisheddocument/2645/637455522835370000.

Perris, City of (City). 2004. Draft Environmental Impact Report City of Perris General Plan 2030 (SCH No. 2004031135). October. Available at: https://www.cityofperris.org/departments/development-services/general-plan. Accessed September 30, 2024.

4.1 Air Quality

This section provides a Project-specific air quality analysis, consistent with the requirements of the PVCCSP EIR. The analysis contained in this section is based on the Project's *Air Quality Impact Analysis* (Urban Crossroads 2025) which is contained in Appendix B of this Draft EIR.

Comments relating to the issue of air quality and health risk were provided by the South Coast AQMD in response to the August 2024 Notice of Preparation. The South Coast AQMD recommended that the City use the South Coast AQMD's CEQA Air Quality Handbook and website as guidance when preparing the air quality and greenhouse gas analyses and that the Project include a health risk assessment and mitigation measures, as necessary, to reduce adverse air quality impacts. The South Coast AQMD also requested that the City send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses for their review. At the scoping meeting, commenters expressed concern about the Project's potential air quality impacts, particularly related to queuing.

4.1.1 Existing Setting

4.1.1.1 South Coast Air Basin

The Project site is located within the South Coast Air Basin, a 6,745-square-mile subregion of southern California. The South Coast Air Basin is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east and includes all of Orange County as well as the non-desert portions of San Bernardino, Los Angeles, and Riverside Counties.

The South Coast Air Basin is under the jurisdiction of the South Coast AQMD. The South Coast AQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county-specific air pollution control bodies into one regional district. Under this Act, the South Coast AQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards.

4.1.1.2 Criteria Air Pollutants

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. As described in Section 4.2 of the PVCCSP EIR, air pollutants are classified as either primary or secondary, depending on how they are formed. Primary pollutants are emitted directly from a source into the atmosphere. Examples of primary pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2) and nitric oxide (NO) (which are collectively known as oxides of nitrogen [NO_X]), sulfur dioxide (SO_2), particulates 10 microns or less in diameter (PM_{10}), particulates 2.5 microns or less in diameter ($PM_{2.5}$), and volatile organic compounds (VOC). The predominant source of air pollutant emissions generated by Project development would be from vehicle emissions. Motor vehicles primarily emit CO, NO_X, VOC, and particulate matter.

Secondary pollutants are created over time and are formed in the atmosphere as chemical and photochemical reactions take place. An example of a secondary pollutant is ozone (O_3), which is one of the products formed when NO_X reacts with VOC in the presence of sunlight. Other secondary pollutants include photochemical aerosols. Secondary pollutants such as ozone represent major air quality problems in the South Coast Air Basin.

The Federal Clean Air Act of 1970 established the National Ambient Air Quality Standards. Six "criteria" air pollutants have now been identified using specific medical evidence, and national standards have been established for those pollutants. The State of California has adopted standards (known as California Ambient Air Quality Standards) for the same seven criteria pollutants, but the state has established more restrictive allowable levels. The six federally regulated criteria pollutants are carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide. The national and California ambient air quality standards currently in effect are shown in Table 4.1-1, *Ambient Air Quality Standards* (California Air Resources Board [CARB] 2024). Further discussion of the criteria pollutants, their sources, and their effects on human health can be found in Section 4.2 of the PVCCSP EIR.

4.1.1.3 Existing Air Quality

Air quality is evaluated in the context of adopted ambient air quality standards. These standards establish the levels of air quality that are considered safe, with an adequate margin of safety, to protect public health and welfare. The national and California ambient air quality standards are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness, and persons engaged in strenuous work or exercise. The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards.

The most recent state and federal standards were updated by CARB on July 16, 2024, as presented in Table 4.1-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, PM_{10}, and $PM_{2.5}$ do not exceed the applicable standards. All others are not to be equaled or exceeded. Attainment status for a pollutant means that the South Coast Air Basin meets the standards set by the U.S. Environmental Protection Agency (EPA) or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the national or California ambient air quality standards. To improve air quality in nonattainment areas, CARB has implemented a State Implementation Plan (SIP). The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA designates the area as a maintenance area (EPA 2024a).

4.1.1.4 Regional Air Quality

The South Coast AQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRAs]) throughout its jurisdiction to provide Southern California residents with information about air quality conditions. The South Coast AQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant (lead) monitoring sites throughout the air district (South Coast AQMD 2023a). The ambient air pollutant levels determine if the South Coast Air Basin is in attainment or nonattainment for each criteria pollutant. See Table 4.1-2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*, for attainment designations for the South Coast Air Basin (CARB 2022).

Table 4.1-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	9.0 µg/m^3	15.0 µg/m^3
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	Same as Primary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	No Federal Standards
Sulfates	24 Hour	25 µg/m^3	No Federal Standards	No Federal Standards
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	No Federal Standards	No Federal Standards
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	No Federal Standards	No Federal Standards

Source: CARB 2024

[1] Federal Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] Federal Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

ppm = parts per million; µg/m^3 = micrograms per cubic meter; PM_{10} = particulate matter with a diameter of 10 microns or less; AAM = Annual Arithmetic Mean; $PM_{2.5}$ = fine particulate matter;
km = kilometer; – = No Standard

Table 4.1-2
ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN

Criteria Pollutant	State Designation	Federal Designation
Ozone – 1-hour standard[1]	Nonattainment	--
Ozone – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO_2)	Unclassifiable/Attainment	Unclassifiable/Attainment
Lead (Pb)[2]	Attainment	Unclassifiable/Attainment

Source: CARB 2022
[1] The national 1-hour ozone standard was revoked effective June 15, 2005.
[2] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the South Coast Air Basin.
PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter

4.1.1.5 Local Air Quality

The City of Perris is located within the Perris Valley Source Receptor Area (SRA 24). Prior to 2021, ambient air emissions of PM_{10} within SRA 24 were monitored at the Perris Valley monitoring station, which was located approximately 3.93 miles south of the Project site within SRA 24. Ambient air quality concentrations are no longer monitored within SRA 24. The Lake Elsinore monitoring station, which is located 12.64 miles southwest of the Project site in SRA 25, records air quality data for carbon monoxide and nitrogen dioxide. The Riverside County 1 monitoring station, which is located 14.10 miles northwest of the Project site in Source Receptor Area 23 records air quality data for $PM_{2.5}$. It should be noted that data from Lake Elsinore and Riverside County 1 monitoring station was utilized in lieu of the Perris Valley monitoring station only in instances where data was no longer collected and available.

Data from 2021-2023 is shown in Table 4.1-3, *Project Area Air Quality Monitoring Summary 2021-2023*, and identifies the number of days ambient air quality standards were exceeded for the Project area, which is considered to be representative of the local air quality at the Project site. Data for ozone, nitrogen dioxide, PM_{10}, and $PM_{2.5}$ for 2021 through 2023 was obtained from the South Coast AQMD Air Quality Data Tables (South Coast AQMD 2024). Additionally, data for sulfur dioxide has been omitted, as attainment is regularly met in the South Coast Air Basin, and few monitoring stations measure sulfur dioxide concentrations.

4.1.1.6 Toxic Air Contaminants and Diesel Emissions

Toxic air contaminants are chemicals referred to as “non-criteria” air pollutants. They are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. There are hundreds of air toxics, and exposure to these pollutants can cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Effects may be both chronic (i.e., of long duration) or acute (i.e., severe but of short duration) on human health. Acute health effects are attributable to sudden exposure to high concentrations of air toxics. These effects can include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects usually result from low-dose, long-term exposure to air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a latency period of 10 to 30 years after exposure to develop.

Table 4.1-3
PROJECT AREA AIR QUALITY MONITORING SUMMARY 2021-2023

Pollutant	Standard	Year		
		2021	2022	2023
Ozone (O_3)				
Maximum Federal 1-Hour Concentration (ppm)		0.117	0.121	0.120
Maximum Federal 8-Hour Concentration (ppm)		0.094	0.091	0.103
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	25	17	10
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	60	37	35
Carbon Monoxide (CO)				
Maximum Federal 1-Hour Concentration	> 35 ppm	0.9	0.9	1.3
Maximum Federal 8-Hour Concentration	> 20 ppm	0.8	0.6	0.7
Nitrogen Dioxide (NO_2)				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.044	0.037	0.042
Annual Federal Standard Design Value		0.007	0.007	0.007
PM_{10}				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 150 µg/m^3	89	91	186
Annual Federal Average (µg/m^3)		21.4	19.8	20.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m^3	0	0	1
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m^3	4	1	5
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 35 µg/m^3	82.10	38.5	48.7
Annual Federal Average (µg/m^3)	> 12[1] µg/m^3	12.58	10.80	10.47
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m^3	10	1	1

Source: Data for ozone, carbon monoxide, nitrogen dioxide, PM_{10}, and $PM_{2.5}$ was obtained from South Coast AQMD Air Quality Data Tables (South Coast AQMD 2024).

1 The federal standard was lowered from 12 µg/m^3 to 9 µg/m^3 on February 7, 2024, after this data was collected.

ppm = parts per million; µg/m^3 = microgram per cubic meter; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter

Diesel engines utilize compression to ignite fuel, contrary to standard gasoline engines which use conventional spark plugs. Engines that use compression typically run at higher temperatures than gasoline engines, thereby causing the formation of substantially more NO_X than in gasoline engines. In 1998, the CARB designated diesel particulate matter, which is present in diesel engine exhaust, as a toxic air contaminant.

4.1.1.7 Cancer Risk Trends

Based on information available from CARB, overall cancer risk throughout the South Coast Air Basin has generally declined since 1990. In 1998, following an exhaustive 10-year scientific assessment process, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. The South Coast AQMD initiated a comprehensive urban toxic air pollution study called the Multiple Air Toxics Exposure Study (MATES). MATES is updated periodically, with the most recent version beginning in January 2018 as part of the MATES V Program (South Coast AQMD 2017). MATES V is the first iteration to estimate cancer risks using both inhalation and non-inhalation pathways, which is consistent with the South Coast AQMD's methodology for estimating cancer risk. Diesel particulate matter is included in this cancer risk along with all other toxic air contaminant sources. As in previous MATES iterations, MATES V finds diesel particulate matter to be the largest contributor to overall air toxics cancer risk, constituting more than 70 percent of the cancer risk within the South Coast Air Basin. However, the average levels of

diesel particulate matter in MATES V are 53 percent lower compared to MATES IV (South Coast AQMD 2021).

4.1.1.8 Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects, including children, the elderly, and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as "sensitive receptors." Commercial, educational, and industrial facilities are not included in the definition of sensitive receptors because employees and patrons do not typically remain onsite for a full 24 hours, but are typically on site for eight hours or less. However, when conducting a Localized Significance Threshold (LST) analysis (discussed in more detail in Section 4.1.4 below), any adjacent land use where an individual could remain for one to eight hours, that is located at a closer distance to the Project site than the receptor used in the PM_{10} and $PM_{2.5}$ analysis, must be considered to determine construction and operational LST air impacts for emissions of nitrogen dioxide and carbon monoxide since these pollutants have an averaging time of one and eight hours. Sensitive receptors in the vicinity of the Project site include single family residences to the northeast and southeast and a learning center and high school to the south.

4.1.2 Existing Policies and Regulations

4.1.2.1 Federal

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, $PM_{2.5}$, PM_{10}, and lead. The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The Clean Air Act establishes the National Ambient Air Quality Standards and specifies future dates for achieving compliance (EPA 2024b). The Clean Air Act also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met.

The 1990 amendments to the Clean Air Act that identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standards require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the Clean Air Act most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the National Ambient Air Quality Standards for the following criteria pollutants: ozone, nitrogen dioxide, sulfur dioxide, PM_{10}, carbon monoxide, $PM_{2.5}$, and lead. The National Ambient Air Quality Standards were amended in July 1997 to include an additional standard for ozone and to adopt a national ambient air quality standard for $PM_{2.5}$. Table 4.1-1, above, provides the National Ambient Air Quality Standards.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of nitrogen oxides which are emitted as byproducts of the combustion process.

4.1.2.2 State

California Air Resources Board

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (Assembly Bill [AB] 2595), responding to the federal Clean Air Act, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources to attain the state ambient air quality standards by the earliest practical date. CARB established the California Ambient Air Quality Standards for all pollutants for which the federal government has National Ambient Air Quality Standards and, in addition, establishes standards for sulfate, visibility, hydrogen sulfide, and vinyl chloride. However, currently, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the South Coast Air Basin because they are not considered to be a regional air quality problem. The California Ambient Air Quality Standards are more stringent than the National Ambient Air Quality Standards (CARB 2024; EPA 2024c).

Local air quality management districts, such as the South Coast AQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each California ambient air quality standard, as shown in Table 4.1-1.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMPs) that include specified emission reduction strategies to meet clean air goals. CARB utilizes the AQMPs from non-attainment areas to compile the SIP, which outlines the measures that the State will take to improve air quality.

Title 24 Energy Standards and California Green Building Standards

CCR Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

Title 24 is updated on a regular basis, with the most recently approved update consisting of the 2022 CALGreen Code that went into effect on January 1, 2023. The California Energy Commission anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce greenhouse gas emissions by 10 million metric tons (California Energy Commission 2021). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. The measures applicable to air quality are as follows (California Department of General Services 2023):

Nonresidential Mandatory Measures

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (CALGreen Code Section 5.106.4.1.1).

- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (CALGreen Code Section 5.106.4.1.2).

- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in CALGreen Code Table 5.106.5.2 (CALGreen Code Section 5.106.5.2).

- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in CALGreen Code Table 5.106. 5.3.3 (CALGreen Code Section 5.106.5.3). Additionally, CALGreen Code Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.

4.1.2.3 Regional

South Coast AQMD Air Quality Management Plan

Currently, the national and California ambient air quality standards for ozone and particulate matter are exceeded in most parts of the South Coast Air Basin, as shown in Table 4.1-2. In response, the South Coast AQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. The current 2022 AQMP was adopted by the South Coast AQMD Governing Board in December 2022. The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the National Ambient Air Quality Standards, as well as explore new and innovative methods to reach its goals.

South Coast AQMD Rules

The South Coast AQMD has established various rules/regulatory requirements applicable to development projects. The following provides a discussion of South Coast AQMD rules particularly relevant to the Project, which address construction-related and operational activities.

South Coast AQMD Rule 201

A person shall not build, erect, install, alter, or replace any equipment permit unit, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants without first obtaining written authorization for such construction from the

Executive Officer. A permit to construct shall remain in effect until the permit to operate the equipment for which the application was filed as granted or denied, or the application is canceled.

South Coast AQMD Rule 401

A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated number 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

South Coast AQMD Rule 402

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

South Coast AQMD Rule 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.

South Coast AQMD Rule 461

This rule attempts to reduce the health risk from gasoline transfer to and from underground storage tanks and dispensing from surface fueling stations. All gas dispensing facilities must have a vapor recovery system with an efficiency of at least 98%, an emission factor not exceeding 0.15 pounds of VOC per 1,000 gallons of gasoline for transfer between storage tanks and dispensing facilities, and an emission factor not exceeding 0.38 pounds of VOC per 1,000 gallons of gasoline when dispensing into customer vehicles.

South Coast AQMD Rule 1113

This rule serves to limit the VOC content of architectural coatings used on projects in the South Coast AQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast AQMD must comply with the current VOC standards set in this rule.

South Coast AQMD Rule 1301

This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the National Ambient Air Quality Standards, while future economic growth within the South Coast AQMD is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of

ammonia, and Ozone Depleting Compounds from new, modified or relocated facilities by requiring the use of Best Available Control Technology.

South Coast AQMD Rule 1401

This rule requires the inspection of new gas transfer and dispensing facilities by South Coast AQMD staff to evaluate cancer risk, which must be no more than 10 in one million over a 70-year lifespan.

4.1.2.4 Local

City of Perris General Plan

The Conservation Element, Healthy Community Element, and Environmental Justice Element of the City of Perris General Plan include policies related to air quality. The specific policies of the General Plan related to air quality that are relevant to the proposed Project are identified in Table 4.1-4, *General Plan Consistency Analysis*, below.[1]

Table 4.1-4
GENERAL PLAN CONSISTENCY ANALYSIS

Policy Number	Policy	Statement of Consistency
Conservation Element		
Policy X.B	Encourage the use of trees within Project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.	The Project is proposed to provide approximately 23 percent landscape cover within the western site and approximately 10 percent landscape cover within the eastern site. This would include a variety of trees throughout the site and parking areas. The Project would be consistent with Conservation Policy X.B.
Healthy Community Element		
Policy HC 6.3	Promote measures that will be effective in reducing emissions during construction activities • Perris will ensure that construction activities follow existing SCAQMD rules and regulations	Construction activities would follow applicable South Coast AQMD and CARB rules and regulations, and PVCCSP EIR mitigation measures for construction emissions. The Project would comply with Policy HC 6.3.

[1] The South Coast AQMD is referred to as the SCAQMD in the City of Perris General Plan.

Policy Number	Policy	Statement of Consistency
	• All construction equipment for public and private projects will also comply with CARB's vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD • Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures. among others. Appropriate control measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded	
Environmental Justice Element		
Goal 6.2 Policy	Discourage development in proximity to sensitive land uses (e.g., schools, hospitals, homes, and long-term care facilities) near source point pollution sources that impact health, including freeways and hazardous waste sites.	The Project site is in proximity to single-family residences, schools, and warehouses. However, the proposed gas station land use (a point pollution source) would be located over 50 feet from the nearest residences as recommended by CARB (2005). The new fuel facility would require authority to construct and permit to operate approval from the South Coast AQMD, which would review the facility design and location for compliance with South Coast AQMD standards for criteria pollutants and air quality. The Project would be consistent with this Environmental Justice Policy.

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

The Project site is located within the PVCC area. As such, and unless otherwise noted, the Project would be required to comply with the following applicable PVCCSP EIR mitigation measures. In the PVCCSP EIR, the South Coast AQMD is referred to as the SCAQMD and the EPA is referred to as the USEPA. PVCCSP EIR mitigation measures MM Air 1 and MM Air 10 have been complied with as part of the Air Quality Impact Analysis prepared for the Project and the results have been incorporated into the analysis contained in this EIR section. PVCCSP EIR mitigation measure MM Air 18 has been complied with through coordination with the RTA.

MM Air 1 To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall

have construction-related air quality impacts analyzed using the latest available URBan EMISsions (URBEMIS) model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Thresholds analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 2 Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air 3 To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour (mph) or less on all unpaved potions of the project sites,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 mph,

- appointment of a construction relations officer to act as a community liaison concerning onsite construction activity including resolution of issues related to Particulate Matter 10 microns in diameter or less (PM_{10}) generation,

- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,

- replacement of ground cover in disturbed areas as quickly as possible.

MM Air 4 Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or USEPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNO_X unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air 7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 8 Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50% or other application techniques with equivalent or higher transfer efficiency.

MM Air 9 To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall

be reviewed by the City of Perris' Building Division for compliance with this MM prior to issuance of a building permit for that project.

MM Air 10 To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's LST analysis, CO Hot Spot analysis, or other appropriate analyses as determined by the City in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits.

MM Air 18 Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of Americans with Disabilities Act (ADA)-compliant paths to the major building entrances in the project.

MM Air 19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the Project sites These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air 20 Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

4.1.3 Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, a significant air quality impact would occur if implementation of the proposed Project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The South Coast AQMD has developed regional significance thresholds for criteria pollutants, as summarized in Table 4.1-5, *Maximum Daily Regional Emissions Thresholds*. The South Coast AQMD's CEQA Air Quality Significance Thresholds (South Coast AQMD 2023b) indicate that any projects within the South Coast Air Basin with daily emissions that exceed the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

Table 4.1-5
MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Regional Construction Threshold (pounds per day)	Regional Operational Thresholds (pounds per day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead	3	3

Source: South Coast AQMD 2023b
NO_x = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_x = sulfur oxides; CO = carbon monoxide

The South Coast AQMD developed the LST methodology to assist lead agencies in analyzing localized impacts associated with project-specific level proposed projects. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The South Coast AQMD produced screening look-up tables for projects less than or equal to 5 acres in size. The South Coast AQMD's screening look-up tables are utilized in determining the significance of the Project's localized air quality impacts, and to determine if further detailed analysis is required. It should be noted that since the look-up tables identify thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized to determine LSTs for the Project. Consistent with South Coast AQMD guidance, the thresholds presented in Table 4.1-6, *South Coast AQMD Maximum Daily Localized Construction Emissions Thresholds*, were calculated by interpolating the threshold values for the Project's disturbed acreage by phase. LSTs for a 5-acre site during operations are used as a screening

tool to determine if further detailed analysis is required, as shown in Table 4.1-7, *South Coast AQMD Maximum Daily Operational Localized Emissions Thresholds*.

Table 4.1-6
SOUTH COAST AQMD MAXIMUM DAILY LOCALIZED CONSTRUCTION EMISSIONS THRESHOLDS

Construction Activity	Construction Localized Thresholds (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Site Preparation	220	1,230	13	6
Grading	237	1,346	14	7

Source: Urban Crossroads 2025
NO_x = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less

Table 4.1-7
SOUTH COAST AQMD MAXIMUM DAILY OPERATIONAL LOCALIZED EMISSIONS THRESHOLDS

Operational Localized Thresholds (pounds per day)			
NO_X	CO	PM_{10}	$PM_{2.5}$
270	1,577	4	2

Source: South Coast AQMD 2008
NO_x = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less

The South Coast AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (South Coast AQMD 2003). In this report the South Coast AQMD states (Page D-3):

> *"…the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the South Coast AQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which South Coast Air Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed South Coast AQMD thresholds for project-specific impacts would be considered cumulatively considerable.

4.1.4 Environmental Impacts

Threshold a:	*Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Impact Analysis

As described in Section 4.1.2.3 above, the South Coast AQMD's 2022 AQMP includes strategies for meeting the national and California ambient air quality standards. Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2, and Section 12.3 of the South Coast AQMD CEQA Handbook (South Coast AQMD 1993). These criteria and an associated discussion of the Project's compliance with the criteria are discussed below.

Consistency Criterion 1

The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion 1 refers to are the California and national ambient air quality standards and the South Coast AQMD regional thresholds. As discussed previously, the LSTs have been developed to determine whether there is a potential for a project to cause localized exceedances of the national and/or California ambient air quality standards, which would occur if significance thresholds were exceeded. As such, projects, uses, and activities that do not exceed any applicable LSTs would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the South Coast AQMD's recommended daily regional emissions thresholds.

Construction Impacts – Consistency Criterion 1

Construction-related California and National Ambient Air Quality Standards violations would occur if localized or regional significance thresholds were exceeded. As evaluated in threshold (c) below, the Project's localized construction-source emissions would not exceed applicable regional significance thresholds or LST thresholds. As such, the Project would not conflict with the first criterion for construction impacts.

Operational Impacts – Consistency Criterion 1

As discussed in threshold (c) below, the Project's localized operational-source emissions would not exceed applicable LSTs. As such, the Project would not conflict with the first criterion for operational impacts.

Consistency Criterion 2

The Project will not exceed the assumptions in the AQMP or increments based on the year of Project build-out and phase.

The 2022 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the South Coast AQMD are provided to SCAG, which develops regional growth forecasts, which

are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the City of Perris General Plan is considered to be consistent with the AQMP.

Operational Impacts – Consistency Criterion 2

Pursuant to the PVCCSP, the Project site is designated for Commercial uses. The Commercial designation provides for retail, professional office, and service-oriented business activities which serve the entire City, as well as the surrounding neighborhoods. This zone combines the General Plan Land Use designations of Community Commercial and Commercial Neighborhood.

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. The Project proposes a Specific Plan Amendment to make the self-storage use consistent with the site's land use designation. The self-storage component has a lower trip generation rate than other commercial uses and could therefore be considered less emissions intensive than the AQMP assumption for commercial uses. Therefore, the Project would not conflict with the goals and objectives of the AQMP. In conclusion, the Project is determined to be consistent with the second criterion.

Significance of Impacts

The Project would be consistent with the City of Perris and SCAG growth projects that are used to develop future air quality forecasts for the AQMP. The localized emissions generated during construction and operation of the Project would not exceed applicable LSTs and, as such, would not jeopardize attainment of the air quality levels identified in the AQMP. The impact of the Project would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold b:	*Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?*

Impact Analysis

<u>Construction Emissions</u>

Construction activities associated with the Project would result in emissions of the criteria pollutants VOC, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities: site preparation, grading, building construction, paving, architectural coating, and on-road trips (associated with workers and vendors). The Project would result in approximately 685 total working-days of construction activity.

The estimated maximum daily construction emissions are summarized in Table 4.1-8, *Overall Construction Emissions Summary*. Detailed construction model outputs are presented in Appendix 3.1 of the Project Air Quality Impact Analysis (Appendix B to this EIR). Under the assumed scenarios (refer to Project Air Quality Impact Analysis for specific construction scenario assumptions), emissions resulting from the Project construction would not exceed criteria pollutant thresholds established by the South Coast AQMD for emissions of any criteria pollutant. This impact would be less than significant.

Table 4.1-8
OVERALL CONSTRUCTION EMISSIONS SUMMARY

Year	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
2025	0.59	10.35	19.85	0.03	0.94	0.30
2026	3.71	19.03	33.26	0.05	1.39	0.50
Winter						
2024	0.90	19.62	36.63	0.06	6.00	2.84
2025	3.71	19.15	32.24	0.05	1.39	0.50
2026	3.69	19.09	31.93	0.05	1.39	0.50
Maximum Daily Emissions	**3.71**	**19.62**	**36.63**	**0.06**	**6.00**	**2.84**
South Coast AQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2025; CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.1 of the Project Air Quality Impact Analysis (Appendix B to this EIR).

VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less

Although the construction emissions generated by the Project would be less than significant, the Project would be required to comply with the applicable PVCCSP EIR mitigation measures described in Section 4.2.2.5. These measures would reduce the Project's contribution to cumulative air quality impacts within the PVCC area.

Operational Emissions

Operational activities associated with the Project would result in emissions of the criteria pollutants VOC, NO_X, SO_X, carbon monoxide, PM_{10}, and $PM_{2.5}$. Operational emissions are expected from the following primary sources:

- Area Source Emissions – including architectural coatings, consumer products, and landscape maintenance equipment;

- Energy Source Emissions – including combustion emissions associated with natural gas As the Project tenants are unknown, natural gas equipment could be used in their course of business. Including emissions from potential uses of natural gas presents a conservative analysis for CEQA purposes;

- Mobile Source Emissions – derived primarily from vehicle trips generated by the Project, including employee trips to and from the site, truck trips associated with the proposed uses, and retail customers. Fugitive dust emanations due to the generation of road dust are also included in mobile source emissions; and

- Gasoline Dispensing Emissions – including the storage, transfer, and dispensing of gasoline at the Project's two gas stations.

Operational-source emissions associated with the Project are summarized in Table 4.1-9, *Summary of Peak Operational Emissions*. As indicated in Table 4.1-9, the Project would exceed regional thresholds of significance established by the South Coast AQMD for emissions of VOC, NO_X, carbon monoxide, and PM_{10}. Over 87 percent of operational-source VOC emissions would be generated from the use of consumer products and mobile activities, and mobile source emissions alone would exceed the regional significance threshold for VOC. Similarly, 90 percent of operational-source NO_X, CO, and PM_{10} emissions would be generated from mobile sources.

Table 4.1-9
SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs./day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
Mobile Source	72.56	72.81	681.03	1.73	152.25	39.51
Area Source	3.76	0.05	5.49	0.00	0.01	0.01
Energy Source	0.08	1.45	1.22	0.01	0.11	0.11
Onsite Equipment	6.47	0.00	0.00	0.00	0.00	0.00
Total Maximum Daily Emissions	**82.86**	**74.31**	**687.74**	**1.74**	**152.37**	**39.63**
South Coast AQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**
Winter						
Mobile Source	67.92	78.07	567.64	1.62	152.25	39.51
Area Source	2.85	0.00	0.00	0.00	0.00	0.00
Energy Source	0.08	1.45	1.22	0.01	0.11	0.11
Onsite Equipment	6.47	0.00	0.00	0.00	0.00	0.00
Total Maximum Daily Emissions	**77.32**	**79.52**	**568.86**	**1.63**	**152.36**	**39.62**
South Coast AQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**

Source: Urban Crossroads 2025
VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less

Significance of Impacts

Emissions resulting from Project construction would not exceed criteria pollutant thresholds established by the South Coast AQMD for emissions of any criteria pollutant and impacts would be less than significant. Operation of the Project would exceed regional thresholds of significance established by the South Coast AQMD for emissions of VOC, NO_X, CO and PM_{10} and impacts would be potentially significant.

Mitigation Measures

As previously stated, the Project would be required to comply with the applicable PVCCSP EIR mitigation measures described in Section 4.2.2.5. The vast majority of the emissions would be generated by mobile sources. No Project-specific mitigation measures are currently available that would further reduce the Project's operational emissions to a less than significant level.

Level of Significance After Mitigation

Although the Project would implement the PVCCSP mitigation measures in Section 4.2.2.5, it should be noted that there is no way to definitively quantify these reductions. Neither the Project applicant nor the Lead Agency (City) can substantively or materially affect reductions in Project mobile-source emissions beyond the regulatory requirements and mitigation measures identified herein. Therefore, the proposed Project would result in a significant and unavoidable impact on criteria pollutant emissions.

Threshold c:	*Would the project expose sensitive receptors to substantial pollutant concentrations?*

Impact Analysis

Localized Significance Thresholds

LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable national and California ambient air quality standards at the nearest residence or sensitive receptor. The sensitive receptors used for this analysis are shown in Figure 4.1-1, *Sensitive Receptors*, and include the following:

R1: Location R1 represents the existing residence at 4063 N Webster Avenue, approximately 94 feet east of the Project site. Receptor R1 is placed at the outdoor living areas (backyards) facing the Project site.

R2: Location R2 represents the existing residence at 4063 N Webster, approximately 469 feet east of the Project site. Receptor R2 is placed at the outdoor living areas (backyards) facing the Project site.

R3: Location R3 represents the existing residence at 3832 Brennan Avenue approximately 1,405 feet southeast of the Project site. Receptor R3 is placed at the outdoor living areas (backyards) facing the Project site.

R4: Location R4 represents the property line of the Val Verde Regional Learning Center athletic field at 3710 Webster Avenue, approximately 1,884 feet south of the Project site. Receptor R4 is placed at the building façade.

R5: Location R5 represents Val Verde High School at 972 Morgan Street, approximately 1,900 feet south of the Project site. Receptor R5 is placed at the building façade.

R6: Location R6 represents the Chevron at 796 Ramona Expressway, approximately 72 feet east of the Project site. Receptor R6 is placed at the building façade.

LEGEND:

N

Site Boundary | Receptor Locations | Distance from receptor to Project site boundary (in feet)

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Source: URBAN CROSSROADS, 2024

HELIX Environmental Planning

Sensitive Receptors

Figure 4.1-1

The nearest sensitive receptor to the Project site is Location R1, which represents the existing residence at 4063 N Webster Avenue, approximately 94 feet east of the Project site. Other sensitive receptors include additional residences located less than 2,000 feet away and Val Verde High School, approximately 1,900 feet south of the Project site. Consistent with the LST Methodology, the nearest land use to the Project site where an individual could remain for 24 hours has been used to determine construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$, since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time. LSTs apply, even for non-sensitive land uses, consistent with LST Methodology and South Coast AQMD guidance.

Per the LST Methodology, commercial, educational, and industrial facilities are not included in the definition of sensitive receptor because employees and patrons do not typically remain onsite for a full 24 hours but are typically onsite for 8 hours or less. However, LST Methodology explicitly states that "LSTs based on shorter averaging periods, such as the nitrogen dioxide and carbon monoxide LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours" (South Coast AQMD 2008). Therefore, any adjacent land use where an individual could remain for one to eight hours, that is located at a closer distance to the Project site than the receptor used for the 24-hour PM_{10} and $PM_{2.5}$ analysis, must be considered to determine construction and operational LST air impacts for emissions of nitrogen dioxide and carbon monoxide since these pollutants have an averaging time of one and eight hours.

The South Coast AQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual or a cumulatively significant impact. As stated above, the nearest receptor used for evaluation of localized impacts of PM_{10} and $PM_{2.5}$ is represented by location R1, which represents the existing residence at 4063 North Webster Avenue, approximately 94 feet (29 meters) northeast of the Project site. As such, for evaluation of localized PM_{10} and $PM_{2.5}$, a 29-meter distance is used. The nearest receptor used for evaluation of localized emissions of NO_X and carbon monoxide is represented by location R6, which represents the Chevron located at 796 Ramona Expressway, approximately 72 feet (22 meters) east of the Project site.

For this Project, the appropriate SRA for the LST analysis is Perris Valley (SRA 24). Table 4.1-10, *Localized Construction-Source Emissions*, identifies the localized impacts at the nearest receptor location in the vicinity of the Project. All other modeled locations in the study area would experience a lesser concentration and consequently a lesser impact. As shown in Table 4.1-10, localized construction emissions would not exceed the applicable South Coast AQMD LSTs for emissions of any criteria pollutant.

Carbon Monoxide Hot Spots

It has long been recognized that carbon monoxide hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, the South Coast Air Basin is now designated as attainment for its carbon monoxide concentration.

Table 4.1-10
LOCALIZED CONSTRUCTION-SOURCE EMISSIONS

Construction Activity		Emissions (lbs./day)			
		NOx	CO	PM_{10}	$PM_{2.5}$
Site Preparation	Maximum Daily Emissions	14.73	28.31	5.76	2.79
	South Coast AQMD Localized Threshold	220	1,230	13	6
	Threshold Exceeded?	NO	NO	NO	NO
Grading	Maximum Daily Emissions	19.43	35.35	2.85	1.16
	South Coast AQMD Localized Threshold	237	1,346	14	7
	Threshold Exceeded?	NO	NO	NO	NO

Source: Urban Crossroads 2025
NO_x = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less

As shown in Table 4.1-11, *Localized Significance Summary of Operations*, operational emissions would not exceed the LST thresholds for the nearest sensitive receptor.

Table 4.1-11
LOCALIZED SIGNIFICANCE SUMMARY OF OPERATIONS

Onsite Emissions	Emissions (lbs./day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**16.84**	**113.17**	**1.05**	**0.41**
South Coast AQMD Localized Threshold	270	1,577	5	2
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2025

To establish a more accurate record of baseline carbon monoxide concentrations affecting the South Coast Air Basin, a carbon monoxide “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of carbon monoxide standards at these intersections, described further below.

Based on the South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide, peak carbon monoxide concentrations in the South Coast Air Basin were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, an 8-hour carbon monoxide concentration of 8.4 parts per million (ppm) was measured at the Long Beach Boulevard. and Imperial Highway. intersection (the highest carbon monoxide generating intersection within the “hot spot” analysis), and only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection while the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (South Coast AQMD 2003). In contrast, an adverse carbon monoxide concentration, known as a “hot spot,” would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

The ambient 1-hour and 8-hour carbon monoxide concentrations within the Project area are estimated to be 0.9 ppm and 0.8 ppm, respectively (data from Lake Elsinore station for 2021). Therefore, even if

the traffic volumes in the Project area with the proposed Project were ten times the traffic volumes generated at the Long Beach Boulevard. and Imperial Highway. intersection, due to the on-going improvements in ambient air quality and vehicular emissions controls, the Project would not be capable of resulting in a carbon monoxide "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential carbon monoxide concentration impacts. More specifically, the Bay Area Air Quality Management District concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant carbon monoxide impact.

The busiest intersection evaluated for the "hot spot" analysis was that at Wilshire Boulevard and Veteran Avenue, which had AM/PM traffic volumes of 8,062 vehicles per hour and 7,719 vehicles per hour, respectively. The 2003 AQMP estimated that the 1-hour carbon monoxide concentration for this intersection was 4.6 ppm, indicating that, should the daily traffic volume increase four times to 400,000 vehicles per day, carbon monoxide concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour carbon monoxide standard (20.0 ppm). The highest trips on a Project intersection during AM traffic is 5,838 vehicles per hour, on Perris Boulevard and Ramona Expressway. This includes existing traffic volumes plus the projected traffic volumes of the proposed Project. The highest trips on a Project intersection for the proposed Project during PM traffic is 6,328 vehicles per hour, on Evans Road and Ramona Expressway. As such, traffic volumes with the Project are less than the traffic volumes identified in the 2003 AQMP. The Project would not produce the volume of traffic required to generate a carbon monoxide "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative Bay Area Air Quality Management District carbon monoxide threshold considerations. Therefore, carbon monoxide "hot spots" are not an environmental impact of concern for the Project.

Significance of Impacts

Results of the LST analysis indicate that the Project would not exceed the South Coast AQMD localized significance thresholds during construction or operations. Project traffic would not create or result in a carbon monoxide "hotspot." Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project construction or operations, and no health risk assessment would be required for the project. Impacts to sensitive receptors would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold d:	*Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Impact Analysis

Land uses generally associated with odor complaints include agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. The Project does not propose land uses typically associated with emitting objectionable odors.

Construction Odors

Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction.

Operational Odors

While restaurants may result in some odors from the cooking process, these odors are not typically considered objectionable. With respect to operation of the gas station, gas pumping activities are also expected to generate odors associated with gasoline fumes. The gas pumps and underground storage tanks would include CARB-required vapor recovery systems that would control VOC vapor releases during refueling and would minimize driver and employee exposure to gasoline odors and fumes. Thus, gasoline odors are not expected to adversely affect adjacent land uses. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the solid waste regulations. The proposed Project would also be required to comply with South Coast AQMD Rule 402 to prevent occurrences of public nuisances.

Significance of Impacts

Odors associated with the proposed Project construction and operations would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

4.1.5 Cumulative Impacts

As discussed in Section 4.1.3, the South Coast AQMD has published a report on how to address cumulative impacts from air pollution, and projects that exceed the project-specific significance thresholds are considered by the South Coast AQMD to result in cumulatively considerable impacts. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

As previously shown in Table 4.1-2, the California Ambient Air Quality Standards designate the South Coast Air Basin as nonattainment for ozone, PM_{10}, and $PM_{2.5}$ while the National Ambient Air Quality Standards designate the South Coast Air Basin as nonattainment for ozone and $PM_{2.5}$.

Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operational Impacts

As substantiated in this analysis, Project-level operational-source VOC, NO_X, carbon monoxide, and PM_{10} emissions impacts would be significant and unavoidable. It should be noted that because the South Coast Air Basin is in attainment for carbon monoxide, Project-level operational carbon monoxide would not be considered cumulatively significant. However, per South Coast AQMD guidance, Project operational-source VOC and NOx (the precursors of ozone), and PM_{10} emissions impacts would be cumulatively significant.

4.1.6 References

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4.2 Greenhouse Gas Emissions

This section provides a Project-specific greenhouse gas emissions analysis, consistent with the requirements of the PVCCSP EIR. The analysis contained in this section is based on the Project's *Greenhouse Gas Analysis* (Urban Crossroads 2023), which is contained in Appendix C of this EIR.

Comments relating to the issue of air quality and health risk were provided by the South Coast AQMD in response to the August 2024 Notice of Preparation. The South Coast AQMD recommended that the City use the South Coast AQMD's CEQA Air Quality Handbook and website as guidance when preparing the air quality and greenhouse gas analyses. The South Coast AQMD also requested that the City send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses for their review. There were no comments addressing greenhouse gas emissions raised at the public scoping meeting.

4.2.1 Existing Conditions

4.2.1.1 Global Climate Change

Global climate change refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. Global climate change can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic activity. Without the natural greenhouse gas effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature over time.

4.2.1.2 Greenhouse Gases and Health Effects

Greenhouse gases trap heat in the atmosphere, creating a greenhouse effect that results in global warming and climate change. For the purposes of this analysis, emissions of CO_2, methane, and nitrous oxide were evaluated because these gases are the primary contributors to global climate change from development projects. Although other substances such as fluorinated gases also contribute to global climate change, these gases were not evaluated as their sources are not well-defined and models do not contain accepted emissions factors or methodology to accurately calculate these gases.

The potential health effects related directly to the emissions of CO_2, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. As described further in Section 4.2.1.4 below, their cumulative effects on global climate change have the potential to cause indirect adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport those higher ambient temperatures would likely lead to more widespread

disease. Climate change would likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (American Lung Association 2024).

4.2.1.3 Global Warming Potential

Different greenhouse gases have different global warming potentials and atmospheric lifetimes. The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential concept to compare the ability of each greenhouse gas to trap heat in the atmosphere relative to another gas. The global warming potential of individual greenhouse gases is determined through comparison with the global warming potential of CO_2., which has a global warming potential of one. Methane, for example, has 28 times the global warming potential of CO_2 and therefore has a global warming potential of 28. CO_2 equivalents (CO_2e) are the emissions of a greenhouse gas multiplied by its global warming potential. The atmospheric lifetimes and global warming potentials of selected greenhouse gases are summarized in Table 4.2-1, *Global Warming Potential and Atmospheric Lifetime of Select Gases*. As shown in the table below from the IPCC's 6th Assessment Report, which assesses global climate change, the global warming potential of the gases evaluated in the IPCC report and discussed in this report in relation to the proposed Project range from 1 for CO_2 to 25,200 for sulfur hexafluoride. The atmospheric lifetimes of these greenhouse gases are up to 3,200 years.

Table 4.2-1
GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GASES

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)	
		2nd Assessment Report	6th Assessment Report
Carbon Dioxide (CO_2)	Multiple	1	1
Methane (CH_4)	11.8	21	28
Nitrous Oxide (N_2O)	109	310	273
Fluroform (HFC-23)	228	11,700	14,600
Tetrafluoroethene (HFC-134a)	14	1,300	1,526
Difluoroethane (HFC-152a)	1.6	140	164
Sulfur Hexafluoride (SF_6)	3,200	23,900	25,200

Source: IPCC Second Assessment Report, 1995 and IPCC Sixth Assessment Report, 2022

4.2.1.4 Effects of Climate Change in California

Public Health

According to the California Energy Commission, higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation (California Energy Commission 2006). For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. Based on Our Changing Climate Assessing the Risks to California by the California Climate Change Center, large wildfires could become up to 55 percent more frequent if greenhouse gas emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a significant increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat (California Energy Commission 2006).

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation.

The state's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply (California Energy Commission 2006).

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly face lower water supplies, as described above, and decreased productivity. In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants (California Energy Commission 2006).

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60

to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change (California Energy Commission 2006).

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches (California Energy Commission 2006).

4.2.2 Existing Policies and Regulations

4.2.2.1 International

Intergovernmental Panel on Climate Change

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change

On March 21, 1994, the U.S. joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the UNFCCC, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

International Climate Change Treaties

The Kyoto Protocol is an international agreement linked to the UNFCCC. The major feature of the Kyoto Protocol is that it set binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at an average of 5 percent against 1990 levels over the five-year period between 2008 and2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions than less industrialized countries over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto Protocol. No binding agreement was reached in Copenhagen; however, the United Nations Climate Change Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject

to a review in 2015. The Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings gradually gained consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the United Nations. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the UNFCCC reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties 21. Together, the Paris Agreement and the accompanying Conference of the Parties decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make “nationally determined contributions,” and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and “progress made in implementing and achieving” their nationally determined contributions, and to undergo international review;
- Commit all countries to submit new nationally determined contributions every five years, with the clear expectation that they would “represent a progression” beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address “loss and damage” resulting from climate change, which explicitly would not “involve or provide a basis for any liability or compensation;”
- Require parties engaging in international emissions trading to avoid “double counting;” and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another

country's nationally determined contributions (Center for Climate and Energy Solutions 2015).

Following President Biden's day one executive order, the U.S. officially rejoined the landmark Paris Agreement on February 19, 2021, positioning the U.S. to once again be part of the global climate solution. Meanwhile, city, state, business, and civic leaders across the country and around the world have been ramping up efforts to drive the clean energy advances needed to meet the goals of the agreement.

4.2.2.2 Federal

Supreme Court Ruling in Massachusetts et al v. Environmental Protection Agency

In *Massachusetts et al. v. Environmental Protection Agency*, decided on April 2, 2007, the United States Supreme Court (Supreme Court) found that four greenhouse gases, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act. The Supreme Court held that the EPA Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GREENHOUSE GASs under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases— CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section "Clean Vehicle Standards" below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the U.S. EPA Administrator's findings (EPA 2020).

Clean Vehicle Standards

Congress first passed the Corporate Average Fuel Economy (CAFE) law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA, and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per

gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and a 15 percent reduction for diesel vehicles by the 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the model year 2022-2025 greenhouse gas standards are not appropriate and should be revised. This Final Determination serves to initiate a notice to further consider appropriate standards for model years 2022-2025 light-duty vehicles. On August 2,2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Rule). The SAFE Vehicles Rule was proposed to amend existing CAFE and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5 percent each year through model year 2026. In April, the EPA and National Highway Traffic Safety Administration's separately announced proposed rulemakings to repeal the previous administration's light-duty motor vehicle regulations that were part of the "The Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program." The comment period has closed, but no additional actions have been taken to date.

On March 31, 2022, NHTSA finalized CAFE standards for model years 2024-2026. The standards for passenger cars and light trucks for model years 2024-2025 were increased at a rate of 8 percent per year and then increased at a rate of 10 percent per year for model year 2026 vehicles. NHTSA currently projects that the revised standards would require an industry fleet-wide average of roughly 49 mpg in model year 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings. These standards are directly responsive to the EPA's statutory mandate to improve energy conservation and reduce the nation's energy dependence on foreign sources.

Mandatory Reporting of Greenhouse Gases

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory greenhouse gas reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs [Greenhouse Gases] Rule, which became effective January 1, 2010. The rule requires reporting of greenhouse gas emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons of CO_2e per year or more of greenhouse gas emissions are required to submit annual reports to the EPA.

New Source Review

The EPA issued a final rule on May 13, 2010, that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities would be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. USEPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources would be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility-Generating Uses

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of CO_2 per megawatt-hour, based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016, the Supreme Court issued a stay of this regulation pending litigation. Additionally, the EPA Administrator signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule. Under the Affordable Clean Energy Rule,

new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

On January 19, 2021, the D.C. Circuit Court of Appeals ruled that the EPA's Affordable Clean Energy Rule for greenhouse gas emissions from power plants rested on an erroneous interpretation of the Clean Air Act that barred EPA from considering measures beyond those that apply at and to an individual source. The court therefore vacated and remanded the Affordable Clean Energy Rule and adopted a replacement rule which regulates CO_2 emissions from existing power plants, potentially again considering generation shifting and other measures to more aggressively target power sector emissions.

Cap-and-Trade

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded to provide flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the nitrous oxide Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal greenhouse gas cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce greenhouse gases among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional greenhouse gas emissions to 15 percent below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the Western Climate Initiative has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, Senate Bill (SB) 32 requires that California, a major partner in the Western Climate Initiative, adopt the goal of reducing statewide greenhouse gas emissions to 40 percent below the 1990 level by 2030.

Executive Order 13990

On January 20, 2021, Federal agencies were directed to immediately review, and take action to address Federal regulations promulgated and other actions taken during the prior 4 years that conflicted with national objectives to improve public health and the environment; ensure access to clean air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce greenhouse gas emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and employment.

4.2.2.3 State

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce greenhouse gases of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address greenhouse gas emissions. Other legislation such as Title 24

and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation but also provide the co-benefit of greenhouse gas reductions. This section describes the major provisions of the legislation.

AB 32

The California State Legislature enacted AB 32, which required that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020 (this goal has been met[1]). Greenhouse gases as defined under AB 32 include CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of greenhouse gases. CARB is the state agency charged with monitoring and regulating sources of greenhouse gases. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

SB 375

On September 30, 2008, SB 375 was signed by Governor Schwarzenegger. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, emitting over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California would not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions; (2) aligns planning for transportation and housing; and (3) creates specified incentives for the implementation of the strategies.

SB 375 requires metropolitan planning organizations to prepare a Sustainable Communities Strategy within the Regional Transportation Plan that guides growth while considering the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage transit-oriented residential projects, which help achieve AB 32 goals to reduce greenhouse gas emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing

[1] Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 million metric tons CO_2e. This is less than the 2020 emissions target of 431 million metric tons CO_2e.

impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

- Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the greenhouse gas emission reduction targets.
- Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
- Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493 - Pavley Fuel Efficiency Standards

Enacted on July 22, 2002, California AB 1493, also known as the Pavley Fuel Efficiency Standards, required CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phased in during the 2009 through 2016 model years. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program or the Advanced Clean Cars program. The Advanced Clean Cars program combines the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation would reduce greenhouse gases from new cars by 34 percent from 2016 levels by 2025. The new rules would clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EVs and hydrogen fuel cell cars. The package would also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved, and Governor Jerry Brown signed SB 350, which reaffirms California's commitment to reducing its greenhouse gas emissions and addressing climate change. Key provisions include an increase in the Renewable Portfolio Standard, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide greenhouse gas emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.

- Double the energy efficiency in existing buildings by 2030. This target would be achieved through the California Public Utilities Commission, the California Energy Commission, and local publicly owned utilities.

- Reorganize the Independent System Operator to develop more regional electrify transmission markets and to improve accessibility in these markets, which would facilitate the growth of renewable energy markets in the western United States.

SB 32

On September 8, 2016, Governor Brown signed SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide greenhouse gas emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80 percent below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature.

2017 CARB Scoping Plan

In November 2017, CARB released the Final 2017 Scoping Plan Update (2017 Scoping Plan), which identifies the state's post-2020 reduction strategy. The 2017 Scoping Plan reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard (LCFS), and much cleaner cars, trucks, and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes.

The 2017 Scoping Plan establishes a new emissions limit of 260 million metric tons of CO_2e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

California's climate strategy would require contributions from all sectors of the economy, including the land base, and would include enhanced focus on zero and near-zero emission vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct greenhouse gas reductions at refineries would further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero-emission vehicles (ZEV) buses and trucks.
- LCFS, with an increased stringency (18 percent by 2030).

- Implementing SB 350, which expands the Renewable Portfolio Standard to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and HCF emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in greenhouse gas emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the 2017 Scoping Plan acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the 2017 Scoping Plan also identifies local governments as essential partners in achieving the state's long-term greenhouse gas reduction goals and identifies local actions to reduce greenhouse gas emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidence-based bright-line numeric thresholds—consistent with the 2017 Scoping Plan and the state's long-term greenhouse gas goals—and projects with emissions over that amount may be required to incorporate onsite design features and MMs that avoid or minimize project emissions to the degree feasible; or a performance-based metric using a climate action plan (CAP) or other plan to reduce greenhouse gas emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed greenhouse gas reduction policies, could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL greenhouse gas Analysis of Policies Spreadsheet (CALGAPS), which simulates greenhouse gas and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future greenhouse gas-reducing policies. The CALGAPS model showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$ per year, indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40 percent below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the state's 80 percent reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050.

2022 CARB Scoping Plan

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan; CARB 2022). The 2022 Scoping Plan builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce greenhouse gas emissions by 85 percent below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to "deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor." The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local greenhouse gas reduction strategy (CAP) consistent with State CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments. As stated in the Plan's executive summary:

> "The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on, and accelerating carbon reduction programs that have been in place for a decade and a half. That means rapidly moving to zero-emission transportation; electrifying the cars, buses, trains, and trucks that now constitute California's single largest source of planet-warming pollution."
>
> "[A]pproval of this plan catalyzes a number of efforts, including the development of new regulations as well as amendments to strengthen regulations and programs already in place, not just at CARB but across state agencies."

Under the 2022 Scoping Plan, the state will lead efforts to meet the 2045 carbon neutrality goal through implementation of the following objectives:

- Reimagine roadway projects that increase vehicle miles traveled (VMT) in a way that meets community needs and reduces the need to drive.
- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail System and other elements of the intercity rail network by 2040.
- Expand and complete planned networks of high-quality active transportation infrastructure.
- Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.
- Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.
- Authorize and implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.

- Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.
- Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.
- Prevent uncontrolled growth of autonomous vehicle VMT, particularly zero-passenger miles.
- Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.
- Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.
- Provide financial support for low-income and disadvantaged Californians' use of transit and new mobility services.
- Expand universal design features for new mobility services.
- Accelerate infill development in existing transportation-efficient places and deploy strategic resources to create more transportation-efficient locations.
- Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (Regional Transportation Plan/Sustainable Communities Strategy and Regional Housing Needs Assessment) and local plans (e.g., general plans, zoning, and local transportation plans).
- Accelerate production of affordable housing in forms and locations that reduce VMT and affirmatively further fair housing policy objectives.
- Reduce or eliminate parking requirements (and/or enact parking maximums, as appropriate) and promote redevelopment of excess parking, especially in infill locations.
- Preserve and protect existing affordable housing stock and protect existing residents and businesses from displacement and climate risk.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce greenhouse gases and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the state's Climate Goals in CEQA greenhouse gas analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): "…focuses primarily on CAPs and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting."

Additionally on Page 21 in Appendix D, CARB states: "The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential

projects to address the housing crisis in a manner that simultaneously supports the state's greenhouse gas and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future." As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

Cap-and-Trade Program

The 2022 Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce greenhouse gas emissions. According to CARB, a cap-and-trade program would help put California on the path to meet its goal of achieving a 40 percent reduction in greenhouse gas emissions from 1990 levels by 2030. Under cap-and-trade, an overall limit on greenhouse gas emissions from capped sectors is established, and facilities subject to the cap would be able to trade permits to emit greenhouse gases within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce greenhouse gas emissions from regulated entities by more than 16 percent between 2013 and 2020, and by an additional 40 percent by 2030. The statewide cap for greenhouse gas emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and would decline over time, achieving greenhouse gas emission reductions throughout the program's duration.

Covered entities that emit more than 25,000 $MTCO_2e$ per year must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$ per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule).

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" for each $MTCO_2e$ of greenhouse gas they emit. There also are requirements to surrender compliance instruments covering 30 percent of the prior year's compliance obligation by November of each year.

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade program is that it does not guarantee greenhouse gas emissions reductions in any discrete location or by any particular source. Rather, greenhouse gas emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the First Update to the Climate Change Scoping Plan:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities.*

> *Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative."*

The Cap-and-Trade Program covers approximately 80 percent of California's greenhouse gas emissions. The Cap-and-Trade Program covers the greenhouse gas emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, greenhouse gas emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. The Cap-and-Trade Program covers the greenhouse gas emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375)

Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the CARB accepts as achieving the greenhouse gas emission reduction targets.

2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).

3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in about a 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete

variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce greenhouse gases from new cars by 34 percent from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EVs and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Clean Energy and Pollution Reduction Act of 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its greenhouse gas emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide greenhouse gas emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce greenhouse gases through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

Executive Order B-55-18

Executive Order B-55-18 was signed by Governor Brown on September 10, 2018. The order establishes an additional statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to

ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07 (LCFS)

Governor Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. CARB adopted the LCFS on April 23, 2009.

The LCFS was challenged in the U.S. District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012, pending final ruling on appeal, allowing CARB to continue to implement and enforce the regulation. The Ninth Circuit Court's decision, filed September 18, 2013, vacated the preliminary injunction. In essence, the court held that LCFS adopted by CARB were not in conflict with federal law. On August 8, 2013, the Fifth District Court of Appeal (California) ruled CARB failed to comply with CEQA and the Administrative Procedure Act when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal reversed the trial court's judgment and directed issuance of a writ of mandate setting aside Resolution 09-31 and two executive orders of CARB approving LCFS regulations promulgated to reduce greenhouse gas emissions. However, the court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while CARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify, and streamline program operations, and enhance enforcement. On November 16, 2015, the Office of Administrative Law approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

In 2018, CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 greenhouse gas emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

Executive Order S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the 2009 California Climate Adaptation Strategy was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15

On April 29, 2015, Governor Brown issued an executive order to establish a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligned California's greenhouse gas reduction targets with those of leading international governments ahead of the United Nations. Climate Change Conference in Paris late 2015. The Order sets a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050 and directs CARB to update the *2017 Scoping Plan* to express the 2030 target in terms of million metric tons of CO_2e. The Order also requires the state's climate adaptation plan to be updated every three years, and for the state to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable as to local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 CCR Sections 1601 et seq. – Appliance Efficiency Regulations

The Appliance Efficiency Regulations regulate the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2024).

Title 24 CCR Part 6 – California Energy Code

The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods.

Title 24 CCR Part 11 – California Green Building Standards Code

CCR Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce greenhouse gas emissions by 10 million metric tons. The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items:

Nonresidential Mandatory Measures

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).

- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).

- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).

- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.

- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).

- Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section

    - 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).

- Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).

- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).

- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)

    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).

    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).

    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance, whichever is more stringent (5.304.1).

- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 square feet or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).

- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 square feet. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit (5.304.3).

- Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the

building systems and components meet the owner's or owner representative's project requirements (5.410.2).

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed the Department of Water Resources to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015, effective December 15, 2015. New development projects that include landscape areas of 500 square feet or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in onsite stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Reporting requirements for local agencies.

CARB Refrigerant Management Program

CARB adopted a regulation in 2009 to reduce refrigerant greenhouse gas emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide greenhouse gas emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high global warming potential refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-global warming potential greenhouse gas refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-global warming potential refrigerants; and (3) verify greenhouse gas emission reductions.

SB 97 and the State CEQA Guidelines Update

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

In 2012, Public Resources Code Section 21083.05 was amended to state:

> *"The Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption, to incorporate new information or criteria established by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code."*

On December 28, 2018, the Natural Resources Agency approved the amendments to the *State CEQA Guidelines*. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing State CEQA Guidelines to reference climate change.

Section 15064.4 was added the State CEQA Guidelines and states that in determining the significance of a project's greenhouse gas emissions, the Lead Agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively insignificant compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a Lead Agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The Lead Agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The Lead Agency must support its selection of a model or methodology with substantial evidence. The Lead Agency should explain the limitations of the particular model or methodology selected for use.

California Renewables Portfolio Standard Program (SB 100)

Under the existing Renewables Portfolio Standard, 25 percent of retail sales are required to be from renewable sources by December 31, 2016, 33 percent by December 31, 2020, 40 percent by December 31, 2024, 45 percent by December 31, 2027, and 50 percent by December 31, 2030. SB 100 raises California's RPS requirement to 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also requires retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency, CalEPA, the Department of Food and Agriculture, and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

4.2.2.4 Regional

The project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast AQMD.

South Coast AQMD

The South Coast AQMD is the agency responsible for air quality planning and regulation in the South Coast Air Basin. The South Coast AQMD addresses the impacts to climate change of projects subject to South Coast AQMD permit as a Lead Agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The South Coast AQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to greenhouse gas emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address greenhouse gas emissions.

In 2008, the South Coast AQMD formed a Working Group to identify greenhouse gas emissions thresholds for land use projects that could be used by local lead agencies in the South Coast Air Basin. In December 2008, the South Coast AQMD Governing Board adopted an interim 10,000 $MTCO_2e$ per year screening level threshold for stationary source/industrial projects for which the South Coast AQMD is the Lead Agency. The Working Group has also developed several different options that are contained in the South Coast AQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, which could be considered for residential and general development projects. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential greenhouse gas impacts from various uses. however, the Guidance Document provides substantial evidence supporting the approaches to significance of greenhouse gas emissions that can be considered by the Lead Agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.

- Tier 3 consists of screening values, which the Lead Agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:

    - Industrial land use: 10,000 $MTCO_2e$ per year

    - Option 1: Based on land use type: residential: 3,500 $MTCO_2e$ per year; commercial: 1,400 $MTCO_2e$ per year; or mixed use: 3,000 $MTCO_2e$ per year

    - Option 2: Residential and commercial land use: 3,000 $MTCO_2e$ per year

- Tier 4 has the following options:

    - Option 1: Reduce Business-as-Usual emissions by a certain percentage; this percentage is currently undefined.

    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures

  - Option 3: 2020 target for service populations, which includes residents and employees: 4.8 $MTCO_2e$ per service population per year for projects and 6.6 $MTCO_2e$ per service population per year for plans;
  - Option 3, 2035 target: 3.0 $MTCO_2e$ per service population per year for projects and 4.1 $MTCO_2e$ per service population per year for plans

- Tier 5 involves mitigation offsets to achieve target significance threshold.

The South Coast AQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

The thresholds identified above have not been adopted by the South Coast AQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain. The only update to the South Coast AQMD's greenhouse gas emissions thresholds since 2010 is that the 10,000 MT CO_2e/yr threshold for industrial projects is now included in the South Coast AQMD's March 2023 South Coast AQMD Air Quality Significance Thresholds document that is published for use by local agencies.

In the absence of other thresholds of significance promulgated by the South Coast AQMD, the City of Perris has been using the South Coast AQMD's 10,000 MT CO_2e/yr threshold for industrial projects and the draft thresholds for non-industrial projects the purpose of evaluating the greenhouse gas emissions impacts associated with proposed general development projects.

The South Coast AQMD only has authority over greenhouse gas emissions from development projects that include air quality permits. If the Project requires a stationary permit, it would be subject to the applicable South Coast AQMD regulations.

South Coast AQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the South Coast AQMD.
- Rule 2702, GHG Reduction Program created a program to produce greenhouse gas emission reductions within the South Coast AQMD. The South Coast AQMD would fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

The South Coast AQMD is the agency responsible for air quality planning and regulation in the South Coast Air Basin. The South Coast AQMD addresses the impacts to climate change of projects subject to South Coast AQMD permit as a Lead Agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The South Coast AQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to greenhouse gas emissions, so the agency helps local land use

agencies through the development of models and emission thresholds that can be used to address greenhouse gas emissions.

4.2.2.5 Local

City of Perris Climate Action Plan

The City of Perris CAP was adopted by the City Council (Resolution Number 4966) on February 23, 2016. The CAP was developed to address global climate change through the reduction of harmful greenhouse gas emissions at the community level, and as part of California's mandated statewide greenhouse gas emissions reduction goals under AB 32. Perris's CAP, including the greenhouse gas inventories and forecasts contained within, is based on the Western Riverside Council of Governments' (WRCOG's) Subregional CAP. The Perris CAP utilized WRCOG's analysis of existing greenhouse gas reduction programs and policies that have already been implemented in the subregion and applicable best practices from other regions to assist in meeting the 2020 subregional reduction target. The CAP reduction measures chosen for the City's CAP were based on their greenhouse gas reduction potential, cost-benefit characteristics, funding availability, and feasibility of implementation in the City. The CAP used an inventory base year of 2010 and included emissions from the following sectors: residential energy, commercial/industrial energy, transportation, waste, and wastewater. The CAP's 2020 reduction target is 15 percent below 2010 levels, and the 2035 reduction target is 47.5 percent below 2010 levels. The City is expected to meet these reduction targets through implementation of statewide and local measures. Beyond 2020, Executive Order S-03-05 calls for a reduction of greenhouse gas emissions to a level 80 percent below 1990 levels by 2050.

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

The Project site is located within the PVCC area of the City of Perris. As such, and unless otherwise noted, the Project is required to comply with the following applicable PVCCSP EIR mitigation measures. The applicable PVCCSP EIR mitigation measures for greenhouse gases are shown below and are required for the Project. Additionally, these select measures, as disclosed in the PVCCSP EIR, would also reduce greenhouse gas emissions. MM Air 18 has already been fulfilled through coordination with the RTA. As a conservative measure, to provide a worst-case disclosure of the Project's impacts, no reduction in emissions has been assumed from the following PVCCSP EIR mitigation measures in the impact analysis provided in Section 4.2.5.

MM Air 4 Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (South Coast AQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOX unless it is unavailable in Riverside County at the time of project construction activities.

Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air 7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance would be required prior to the issuance of occupancy permits.

MM Air 18 Prior to the approval of each implementing development project, the RTA shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the Project sites shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project.

MM Air 19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the Project sites. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air 20 Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

4.2.3 Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, a significant greenhouse gas impact would occur if implementation of the proposed project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The City has not adopted its own numeric threshold of significance for determining impacts with respect to greenhouse gas emissions. A screening threshold of 3,000 $MTCO_2e$ per year to determine if additional analysis is required is an acceptable approach for small projects. This approach is a widely accepted screening threshold used by the City and numerous cities in the South Coast Air Basin based on the South Coast AQMD staff's proposed greenhouse gas screening threshold for stationary source emissions for non-industrial projects, as described in the South Coast AQMD's Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans (South Coast AQMD Interim GHG Threshold). Thus, if a non-industrial project would emit greenhouse gases less than 3,000 $MTCO_2e$ per year, the project is not considered a substantial greenhouse gas emitter and the greenhouse gas impact is considered less than significant, requiring no additional analysis and no mitigation. On the other hand, if a non-industrial project would emit greenhouse gases in excess of 3,000 $MTCO_2e$ per year, then the project could be considered a substantial greenhouse gas emitter, requiring additional analysis and potential mitigation. The screening threshold of 3,000 $MTCO_2e$ per year is an acceptable approach for small projects to determine if additional analysis is required and is therefore applied for this Project.

Regarding consistency with greenhouse gas reduction plans and policies, pursuant to Section 15064.4 of the State CEQA Guidelines, a Lead Agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from greenhouse gas emissions. The Project's consistency with the 2022 Scoping Plan, the most applicable GHG reduction plan, is qualitatively discussed for the purpose of this analysis.

4.2.4 Environmental Impacts

Threshold a:	*Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Impact Analysis

As discussed in the Greenhouse Gas Analysis for this project (Appendix C), greenhouse gas emissions would result from construction and operation of the proposed Project. Construction emissions are quantified and amortized over the life of the Project, which is assumed to be 30 years for this analysis. The amortized annual construction emissions are added to the annual operational phase greenhouse gas emissions to reach the total annual greenhouse gas emissions associated with the Project. As shown in Table 4.2-2, Project Greenhouse Gas Emissions, the Project would result in the emissions of approximately 852.45 $MTCO_2e$ per year from construction, energy, water usage, waste, and refrigerants. In addition, the Project has the potential to result in an additional 24,177.00 $MTCO_2e$ per year from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 25,029.45 $MTCO_2e$ per year, as shown in Table 4.2-2. These emissions would exceed the 3,000 $MTCO_2e$ per year threshold of significance used for this analysis.

Table 4.2-2
PROJECT GREENHOUSE GAS EMISSIONS

Emission Source	Emissions (MT per year)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	30.35	1.16E-03	8.57E-04	1.17E-02	30.64
Mobile	23,779.81	0.97	1.13	37.71	24,177.00
Area	2.56	0.00	0.00	0.00	2.57
Energy	571.33	0.05	0.00	0.00	573.78
Water	43.97	1.03	0.02	0.00	77.26
Waste	41.46	4.14	0.00	0.00	145.06
Refrigerants	0.00	0.00	0.00	23.13	23.13
Total CO_2e (All Sources)	**25,029.45**				

Significance of Impacts

The Project would exceed the 3,000 $MTCO_2e$ per year threshold of significance and would therefore result in a potentially significant impact with respect to greenhouse gas emissions.

Mitigation Measures

The Project would implement PVCCSP mitigation measures MM Air 4 through MM Air 7, MM Air 14, and MM Air 18 through MM Air 20. However, the vast majority of the emissions would be generated by mobile sources and neither the City nor the Project applicant have regulatory authority to control mobile source (tailpipe) emissions. No feasible mitigation measures beyond the PVCCSP EIR measures identified above exist that would reduce greenhouse gas emissions to levels that are less than significant.

Level of Significance After Mitigation

Impacts would be significant and unavoidable.

Threshold b: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis

As previously stated, pursuant to Section 15064.4 of the State CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from greenhouse gas emissions. As such, the Project's consistency with the 2022 Scoping Plan is discussed below. It should be noted that the Project's consistency with the 2022 Scoping Plan also satisfies consistency with AB 32 since the 2022 Scoping Plan is based on the overall targets established by AB 32 and SB 32. Consistency with the 2008 and 2017 Scoping Plan is not necessary since both of these plans have been superseded by the 2022 Scoping Plan.

2022 Scoping Plan Consistency

The Project would not impede the state's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory

requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies the Project will comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the LCFS. Further, the Project will implement PVCCSP EIR mitigation measures MM Air 4 through MM Air 7, MM Air 14, and MM Air 18 through MM Air 20, which are discreet mitigation measures aimed at reducing greenhouse gas emissions. As noted in the analysis herein, compliance with these mitigation measures would ensure that the Project would be consistent with the Perris CAP.

Additionally, the PVCCSP EIR mitigation measures MM Air 14 and MM Air 18 through MM Air 20 would further reduce Project greenhouse gas emissions and VMT, including increased implementation and availability of vehicle and equipment electrification and optimization of vehicle access and activity. Upon coordination with the RTA, as required by PVCCSP EIR mitigation measure MM Air 18, the Project design was modified to include a curb cut between Project Driveways 3 and 4 to accommodate a future bus stop. PVCCSP EIR Mitigation measure MM Air 18 has therefore been fulfilled. The Project would result in a less than significant VMT impact as further discussed in the Project-specific VMT analysis (refer to Section 7.1.15). As such, the Project would be consistent with the 2022 Scoping Plan.

Consistency with the City's CAP

The City adopted its CAP in February 2016. The measures identified in the CAP represent the City's actions to achieve the greenhouse gas reduction targets of AB 32 for target year 2020. Local measures incorporated in the CAP include:

- Energy measure that directs the City to create an energy action plan to reduce energy consumption citywide;
- Land use and transportation measures that encourage alternative modes of transportation (walking, biking, and transit), reduce motor vehicle use by allowing a reduction in parking supply, voluntary transportation demand management to reduce vehicle miles traveled, and land use strategies that improve jobs-housing balance (increased density and mixed-use); and
- Solid waste measures that reduce landfilled solid waste in the City.

The PVCCSP EIR mitigation measures listed in Section 4.2.2.5 require the Project to implement features to reduce energy consumption, increase energy efficiency, and encourage alternative methods of transportation. These actions would contribute to compliance with the CAP by reducing the Project's construction and operational emissions. The Project would comply with the CAP through compliance with the PVCCSP EIR mitigation measures identified previously, and the Project would not conflict with local strategies and state/regional strategies listed in the Perris CAP.

Further, the Project is subject to California Building Code requirements. New buildings must meet the applicable building code requirements and standards in place at the time building permit documentation submittals are made. The CALGreen Code is updated on a regular basis, with the most recent approved 2022 CALGreen Code effective on January 1, 2023. As construction of the Project is anticipated to be completed in 2026, it is presumed that the Project would be required to comply with

the Title 24 standards in place at that time. While the Project does not include reduced parking, or increased density, it would provide sidewalks, bike racks, pedestrian walkways, a bus stop, and TDM measures to encourage the use of alternative modes of transportation (walking, biking, and transit). As such, the Project would not conflict with applicable greenhouse gas reduction measures in the CAP.

Significance of Impacts

The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

4.2.5 Cumulative Impacts

Individual projects would result in impacts that are cumulatively considerable when the individual project, along with all other past, present, and probably future projects, would contribute to the potential for global climate change. While individual projects are unlikely to measurably affect global climate change, each of these projects incrementally contributes toward the potential for global climate change on a cumulative basis, in concert with all other past, present, and probable future projects.

Despite the global nature of greenhouse gas impacts, it is important to note that the scope of the City's jurisdictional authority is limited to certain types of emissions generated within the City's physical boundaries. The City's authority does not include the regulation of the majority of actions, including for example, transportation policy, fuel consumption, and energy generation, which the state has determined are necessary to meet all of AB 32's greenhouse gas reduction goals. Further, some of the greenhouse gas emissions associated with the Project can be reduced only by measures to be implemented by other governmental agencies which are outside the City's jurisdiction. Greenhouse gas emissions are clearly significant on a global basis, and when greenhouse gas emissions are outside of the lead agency's jurisdiction and control, consistent with Public Resources Code Section 21081(a)(2), a project has cumulatively considerable significant and unavoidable greenhouse gas impacts if other agencies do not take necessary action. These other agencies can and should adopt requirements to ensure cumulative greenhouse gas reductions.

Greenhouse gas emissions modeling was used to predict the amount of greenhouse gases the Project would generate during construction and operation. The total greenhouse gas emissions were above the threshold of 3,000 $MTCO_2e$ per year used to evaluate this Project's direct impact.

Although the proposed Project is expected to emit greenhouse gases, given the global reach of climate change, the emission of greenhouse gases by a single project into the atmosphere is not necessarily an adverse environmental effect. Rather, it is the increased accumulation of greenhouse gas from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of climate change can cause adverse environmental effects on a cumulative basis. The fact that greenhouse gas emissions are cumulative was noted by the California Natural

Resources Agency in its Public Notice for the SB 97's CEQA amendments regarding greenhouse gases. Because the proposed Project's greenhouse gas emissions would exceed both the threshold selected for this Project and the South Coast AQMD's recommended threshold, the contribution of the proposed Project to the significant cumulative impact of greenhouse gas emissions would be cumulatively considerable.

4.2.6 References

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5.0 PROJECT ALTERNATIVES

5.1 Introduction

An EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment. In compliance with Section 15126.6(a) of the State CEQA Guidelines, an EIR must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects of the project and evaluate the comparative merits of the alternatives." The City of Perris, as the CEQA Lead Agency, is responsible for selecting a range of project alternatives. This section identifies potential alternatives to the proposed Project and evaluates them, as required by CEQA.

Key provisions of the State CEQA Guidelines on alternatives (Sections 15126.6[b]–15126.6[f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in an EIR.

1. "The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objective or would be more costly" (Section 15126.6[b]).

2. "The specific alternative of 'no project' shall also be evaluated along with its impact" (Section 15126.6[e][1]).

3. "The 'no project' analysis shall discuss the existing conditions at the time the Notice of Preparation is published, and at the time the environmental analysis is commenced, as well as what would be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (Section 15126.6[e][2]).

4. "The range of alternatives required in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent)" (Section 15126.6[f]).

5. For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (Section 15126.6[f][2][A]).

6. "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given locations" (Section 15126.6[f][2][B]).

7. "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (Section 15126.6[f][3]).

Pursuant to the guidelines stated above, a range of alternatives to the Project is considered and evaluated in this Draft EIR. These alternatives were developed during Project planning and environmental review. The discussion in this section provides the following:

- A description of alternatives considered for analysis as well as rationale for those rejected from further analysis;

- A comparative analysis of the potential impacts associated with the alternatives under consideration and the Project. The focus of this analysis is to determine if alternatives can eliminate or reduce the significant environmental effects of the Project to a less than significant level; and

- An analysis of whether the alternatives meet most of the objectives of the Project.

5.2 Alternatives Considered and Not Carried Forward for Further Analysis

Section 15126.6(c) of the State CEQA Guidelines specifies that an EIR should: (1) identify alternatives that were considered by the lead agency but were rejected because they were determined to be infeasible during the scoping process, and (2) briefly explain the reasons underlying the lead agency's determination. This section of the State CEQA Guidelines further states: "among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives; (ii) infeasibility; or (iii) inability to avoid significant environmental impacts."

The alternatives described below were considered during the scoping and planning process but were not selected for detailed analysis in this Draft EIR given the reasons described below. Generally, the primary reasons for rejecting these alternatives were that they would not avoid or substantially reduce significant impacts associated with the Project or would not be consistent with the Project objectives.

5.2.1 Alternate Site Alternative

In accordance with State CEQA Guidelines Section 15126.6(f)(2), an alternative location for a project should be considered if the development of another site is feasible and if such development would avoid or substantially lessen the significant impacts of that project. Factors that may be considered when identifying an alternative site location include the size of the site, its location, the applicable land use

designation, and the availability of infrastructure. State CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in addressing an off-site alternative is "whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location." Another one of the factors for the feasibility of an alternative site is "whether the proponent can reasonably acquire, control or otherwise have access to the alternative site."

The significant and unmitigable impacts of the project are related to air quality and greenhouse gas emissions, which are not primarily site dependent but rather associated with the proposed commercial land uses. The number of trips associated with the proposed Project uses does not depend on the location where these uses are proposed. While some decrease in trip lengths could occur in a VMT-efficient area, the number of trips would not be reduced such that the Project's significant air quality and greenhouse gas emissions impacts would be avoided. Further, the Project applicant does not control another site of comparable land area that is available for development of the Project within the City. As such, an alternate location alternative was rejected from further analysis in the Draft EIR.

5.2.2 Less than Significant Air Quality Impact Alternative

In order to avoid the Project's significant air quality impact, mobile trips associated with the proposed commercial development would need to be reduced by approximately 40 percent, which would correspond to 5,758 trips. This level of reduction in trips could be achieved, for example, with the removal of all six drive-through restaurants, or a 50 percent decrease in the total drive-through restaurant square footage in addition to removal of the 12 fuel pump gas station with convenience store and sit down restaurant uses. Other combinations of reductions could similarly achieve the 40 percent reduction in mobile trips; however, it remains the case that such reductions in trips would require substantial reductions in the development of the site. As such, this alternative would not meet the Project objectives and would not be economically feasible for development. It would also result in a substantial underutilization of the Project site. Therefore, an alternative to reduce air quality impacts below a level of significance was rejected from further analysis in the Draft EIR

5.2.3 Less than Significant Greenhouse Gas Emissions Impact Alternative

In order to avoid the Project's significant greenhouse gas emissions impact, mobile trips associated with the proposed commercial development would need to be reduced by approximately 88 percent, which would correspond to 12,667 trips. To reduce mobile trips to this level, only the 80,478 square feet of self-storage, two 6,000-square-foot sit-down restaurants, and car wash uses of the proposed Project could be retained. This alternative would not meet the Project objectives and would not be economically feasible for development. It would also result in a substantial underutilization of the Project site. Therefore, an alternative to reduce greenhouse gas emissions impacts below a level of significance was rejected from further analysis in the Draft EIR

5.3 Alternatives Analysis

Consistent with State CEQA Guidelines Section 15126(d), the alternatives described below are analyzed to include sufficient information to allow a meaningful analysis and comparison with the impacts of the Project. As described above, the significant and unmitigable impacts of the Project are air quality impacts and greenhouse gas emissions impacts. Therefore, the following analysis focuses on how the proposed alternative reduces the extent of these significant impacts. For the "build" alternative below (Alternative 2), it is assumed that the PVCCSP Standards and Guidelines, PVCCSP EIR mitigation

measures, and Project-specific mitigation measures identified for the Project would also be implemented with the alternative and thus serve to reduce or avoid potential significant impacts similar to the Project.

A No Project Alternative and Reduced Development Alternative are carried forward and evaluated in this EIR as alternatives to the proposed Project. The following rationale was considered when developing this range of alternatives:

- **Alternative 1 – No Project Alternative.** The No Project Alternative is required per State CEQA Guidelines Section 15126.6(e). It provides a basis for comparing the impacts that would occur if the Project were approved, relative to what would occur if the Project were not approved.

- **Alternative 2 – Reduced Development Alternative.** The Reduced Development Alternative is included to evaluate whether the Project's identified significant impacts would be avoided or substantially reduced with a feasible reduction in the intensity of the proposed development.

These alternatives represent a reasonable range of alternatives, as defined in the State CEQA Guidelines, because they provide feasible alternate development patterns that would reduce (but not eliminate) the significant impacts associated with the Project. The conclusion for each alternative also provides an overview of how the alternative meets, partially meets, or fails to meet the Project objectives.

5.3.1 No Project Alternative

5.3.1.1 Description of Alternative

State CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated along with its impacts to allow decision makers to compare the impacts of approving the Project with the impacts of not approving the Project. The "no project" analysis is required to discuss the existing conditions at the time the Notice of Preparation is published, as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services.

While existing entitlements allow construction of up to 220,250 square feet of commercial development on a portion of the proposed Project site, the Project applicant has informed the City that development consistent with the speculative commercial uses analyzed in the prior EIR for the site is not economically feasible. The commercial development analyzed in the prior EIR for the site assumed general retail uses would be constructed within the two eastern parcels of the Project site, while the westernmost parcel was reserved for I-215 onramp improvements. Further, alternative development consistent with this analysis has not been proposed since the entitlements for the site were approved in 2016 and the Project applicant does not anticipate that similar future development would be proposed. Therefore, with consideration of reasonably foreseeable development if the proposed Project were not approved, the No Project Alternative is a no-build alternative. Under the No Project Alternative, site conditions would remain as they were at the time the Notice of Preparation was issued in August 2024 and no physical change to the vacant Project site would occur.

5.3.1.2 Comparative Environmental Impact Analysis

Air Quality

No demolition, grading, construction, or development would occur under the No Project Alternative. Under this alternative, the Project site would remain vacant and no construction- or operation-related air pollutants would result. This would be a reduction in emissions compared to the proposed Project. No air quality impacts would occur under the No Project Alternative.

Greenhouse Gas Emissions

Similar to the description of air quality impacts provided above, the No Project Alternative would not result in greenhouse gas emissions associated with construction or operation, as the Project site would remain vacant. This would be a reduction in emissions compared to the proposed Project. No greenhouse gas emissions impacts would occur under the No Project Alternative.

5.3.1.3 Conclusions

The No Project Alternative would avoid the significant air quality and greenhouse gas emissions impacts associated with the proposed Project. However, the No Project Alternative would not meet any of the objectives of the proposed Project, and the benefits of the proposed Project would not be realized under the No Project Alternative. This alternative would leave the site vacant. Therefore, this alternative would not provide local serving commercial uses or increase employment opportunities within the City.

5.3.2 Reduced Development Alternative

5.3.2.1 Description of Alternative

As the significant air quality and greenhouse gas emissions impacts of the Project are primarily a result of mobile sources, the Reduced Development Alternative considers a development scenario that would implement the uses proposed by the Project applicant at a lower intensity, such that associated vehicle trips would be reduced. The Reduced Development Alternative considers development of commercial uses including 80,478 square feet of self-storage use across 22 buildings, two 6,000-square-foot sit-down restaurants, six drive-through fast-food restaurants comprised of 18,400-square-feet of building area, 20 vehicle fueling positions within one gas station including 5,000 square feet of convenience store uses, and a 5,425-square-foot automated car wash building. This scenario represents the removal of one gas station with 12 vehicle fueling positions and its associated convenience store as compared to the proposed Project. The Reduced Development Alternative retains the self-storage facility, drive-through restaurants, sit-down restaurant uses, and car wash as proposed by the Project. Vehicle trips associated with the Reduced Development Alternative would be reduced by approximately 2,083 average daily trips, representing an approximately 14 percent reduction from the vehicle trips associated with the proposed Project.

5.3.2.2 Comparative Environmental Impact Analysis

Air Quality

The Reduced Development Alternative would reduce the Project's air pollutant emissions when compared to the proposed Project because it would reduce the vehicle trips associated with the Project.

Construction emissions would decrease only slightly, as the majority of site preparation and grading activities would require the same intensity of construction as under the proposed Project. Greater reductions in air pollutant emissions generated by operations would occur because mobile sources would be reduced by 14 percent. However, as the Project's operational, mobile source pollutant emissions would need to be reduced by approximately 40 percent to be below the applicable emissions thresholds of significance, the Reduced Development Alternative would not reduce the Project's significant operational air quality impact to a less than significant level. As such, air quality impacts would remain significant and unavoidable under the Reduced Development Alternative, though the daily pollutant emissions would be decreased.

Greenhouse Gas Emissions

Similar to the discussion of air quality impacts above, the Reduced Development Alternative would have decreased greenhouse gas emissions impacts in comparison with proposed Project. The decreased building area to be constructed would reduce the total amount of construction activity and associated greenhouse gas emissions. During operation, slight decreases in greenhouse gas emissions from energy use would occur and a greater decrease, approximately 14 percent, in greenhouse gas emissions due to vehicle trips would occur. However, as the Project's mobile source greenhouse gas emissions would need to be reduced by approximately 88 percent to be below the applicable threshold, the Reduced Development Alternative would not reduce the Project's significant operational greenhouse gas emissions impact to a less than significant level. As such, greenhouse gas emissions impacts would remain significant and unavoidable under the Reduced Development Alternative, though total greenhouse gas emissions would be decreased.

5.3.2.3 Conclusions

The Reduced Development Alternative would reduce the significant air quality and greenhouse gas emissions impacts associated with the proposed Project, but not to a less than significant level. The Reduced Development Alternative would meet the Project objectives but to a lesser degree than the proposed Project because fewer local serving commercial uses and employment opportunities would be created.

5.4 Environmentally Superior Alternative

The State CEQA Guidelines require the identification of an environmentally superior alternative among the alternatives analyzed in an EIR, which is typically selected based on an ability to avoid or substantially reduce significant environmental effects associated with the project. State CEQA Guidelines Section 15126.6(e)(2) also requires that if the No Project Alternative is identified as the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

Based on a comparison of the overall environmental impacts for the described alternatives, the No Project Alternative is identified as the environmentally superior alternative. This alternative would avoid the significant impacts that would occur with the proposed Project. However, the No Project Alternative does not meet any of the Project objectives.

Therefore, the other environmentally superior alternative is the Reduced Development Alternative. This alternative would meet the Project objectives, although to a lesser degree than the proposed Project

given the reduced commercial uses and employment opportunities that would be provided in the City. This alternative would reduce the pollutant and greenhouse gas emissions associated with the Project but would not reduce the significant air quality and greenhouse gas impacts of the Project to a less than significant level. No increase in the severity of impacts would occur under the Reduced Density Alternative.

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6.0 OTHER CEQA CONSIDERATIONS

State CEQA Guidelines Sections 15120-15132 set forth several general content requirements for EIRs. Those applicable to this Project that have not been provided in other sections of this Draft EIR include significant and unavoidable environmental effects (Section 15126(b)), significant irreversible environmental effects (Section 15126(c)), and growth inducing impacts (Section 15126(d)). This section addresses each of those general requirements.

6.1 Significant and Unavoidable Impacts

Section 15126(b), as further specified in Section 15126.2(c), of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The significant environmental impacts of the Project are discussed in more detail in Sections 4.1, *Air Quality*, and 4.2, *Greenhouse Gas Emissions*, of this EIR.

With incorporation of applicable PVCCSP EIR mitigation measures and Project-specific mitigation measures, potential impacts related to the following environmental issues would be less than significant: aesthetics, agriculture and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and services systems, and wildfire. Even with incorporation of the applicable PVCCSP EIR mitigation measures, the Project would result in the following significant and unavoidable impacts.

- **Project and Cumulatively Considerable Increase in Criteria Pollutant Emissions during Operation**: As discussed in Section 4.1 of this Draft EIR, the Project operational-source emissions of VOC, NOx, carbon monoxide, and PM_{10} would exceed the regional thresholds of significance established by the South Coast AQMD. The operational emissions would primarily be associated with vehicle sources. The City and the Project applicant do not have regulatory authority to control tailpipe emissions; therefore, no feasible mitigation beyond the measures identified in the PVCCSP EIR exist that would reduce mobile source emissions to levels below the regional thresholds of significance established by the South Coast AQMD. Therefore, operation of the Project would result in a significant and unavoidable net increase of criteria pollutants for which the project region is nonattainment under applicable federal or state ambient air quality standards. Subsequently, the proposed Project would result in a cumulatively significant and unavoidable impacts with respect to operational activity.

- **Project and Cumulative Greenhouse Gas Emissions**: As discussed in Section 4.2 of this Draft EIR, the Project's greenhouse gas emissions would exceed the threshold of 3,000 $MTCO_2e$ per year. There are no additional feasible mitigation measures beyond those identified in the PVCCSP EIR that would reduce the Project's greenhouse gas emissions to a less than significant level. The Project's vehicular source emissions are the cause of this threshold being exceeded and the City or Project applicant cannot readily decrease vehicle source emissions. Therefore, the proposed Project would result in cumulatively significant and unavoidable impacts with respect to greenhouse gas emissions.

No mitigation measures are feasible to reduce these potentially significant Project and cumulative impacts to a less than significant level. Therefore, adoption of a Statement of Overriding Considerations is required if the City of Perris City Council elects to approve the Project.

6.2 Significant and Irreversible Effects

Pursuant to State CEQA Guidelines Section 15126.2(d), an EIR must include a description of significant irreversible environmental changes that would be caused by the proposed action. Section 15126.2(d) reads as follows:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

Determining whether the proposed Project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Although the Project site is currently vacant and does not contain unique local or regional resources, the proposed Project would permanently alter the site for future generations by converting a predominantly vacant parcel to a developed site with commercial uses. A more detailed discussion of the Project's potentially significant and irreversible effects is provided in the following sections.

6.2.1 Irreversible Commitment of Resources

Implementation of the proposed Project would irreversibly commit the 20.28-acre vacant and underutilized Project site to development and commercial use. Although construction and operation of the proposed commercial uses at the Project site would contribute to the incremental depletion of renewable and nonrenewable resources, the proposed Project would be consistent with other existing and planned development in the Project vicinity within the PVCC area.

Construction of the proposed Project would require the use of renewable resources such as lumber and other forest products, which could be expected to be replenished over the lifetime of the Project because sustainably harvested lumber supplies are increased as seedlings mature into trees. As such, the development of the Project would not result in the irreversible commitment of renewable resources. Nevertheless, there would be an incremental increase in the demand for these resources during construction of the Project.

Construction of the Project would also result in the use of non-renewable resources including building materials (e.g., asphalt, petrochemical construction materials, steel, copper and other metals, and sand and gravel) and fossil fuels, including the use of fossil fuels for construction lighting and equipment, the transport of construction materials to the Project site and the transportation of construction workers to and from the Project site (e.g., natural gas, gasoline, diesel fuel and other petroleum-based products). These materials and the resources used in their production are available in a finite supply and are generally not retrievable, although some of the materials are recyclable. Construction materials like

concrete and asphalt, for example, can be crushed and recycled as road base. However, the majority of the Project 's construction materials would be non-renewable resources.

During Project operation, the Project would result in an irreversible commitment of nonrenewable resources, such as energy resources (petroleum and natural gas) and fossil fuels. Long-term energy resources would include fuel consumed for the heating and cooling of buildings, transportation of people and goods, as well as for lighting and other energy-related needs. Electricity consumption during operation would increase the consumption of oil, coal, and natural gas used at power plants located outside of the City. Given the statewide transition to renewable resources, it is likely that a larger percentage of the Project's energy would come from renewable sources over time; however, the conservative analysis conducted in this EIR assumes that the Project would continue to rely on nonrenewable energy resources during operation.

Natural gas, energy, and fuel consumption would not represent a significant impact, and the Project would not result in wasteful use of these resources. The Project would be a justified consumption of resources because the proposed Project is consistent with the City's planned non-residential and employment generating use of the site and because there are no unique characteristics of the proposed Project that would make this Project operate at a less energy efficient level than other similar developments.

6.2.2 Irreversible Environmental Changes

Irreversible environmental changes are typically associated with the environmental topics of agricultural and forestry resources, biological resources, cultural resources, paleontological resources, mineral resources, and tribal cultural resources. The Initial Study found that potential environmental effects to these resources resulting from implementation of the proposed Project would be below the level or significance or can be mitigated to below the level of significance, as described in Section 7.0, *Effects Found Not to be Significant*. Therefore, although the Project would result in changes to the existing site conditions, the Project would not result in significant irreversible environmental changes to these resources.

6.2.3 Potential Environmental Damage from Accidents

The Project applicant proposes a commercial center with restaurant, car wash, gas station, and self-storage components; however, potential impacts related to the creation of a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment were found to be less than significant without mitigation during preparation of the Initial Study (Section 7.0). Additionally, potential impacts related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or planned school, and safety hazards for people residing or working in the Project area, if within an airport land use plan or within two miles of a private or private-use airport would be reduced to less than significant levels through compliance with regulatory requirements and Riverside County Airport Land Use Commission conditions.

The Project site is located within a seismically active region and would be exposed to ground shaking during a seismic event. In order to address the potential for moderate to severe ground-shaking that may occur during the lifetime of the proposed structures, Project development would follow engineering and design parameters in accordance with the most recent edition of the California Building

Code and/or the Structural Engineers Association of California parameters, as required in standard City conditions of approval.

6.3 Growth Inducing Impacts

According to State CEQA Guidelines Section 15126.2(e), a project may foster economic or population growth, or additional housing, either indirectly or directly, in a geographical area if it meets any one of the following criteria below:

- A project would remove obstacles to population growth;
- Increases in the population may tax existing community service facilities, causing significant environmental effects; or
- A project would encourage and facilitate other activities that could significantly affect the environment.

6.3.1 Population Growth

The Project would not remove obstacles to population growth or directly contribute to population growth. The proposed Project involves construction and operation of commercial uses in an area that the City has planned for this type of development. No residential uses are proposed.

Although the Project includes expansion of infrastructure and roadway improvements in the immediate Project vicinity, these improvements have been planned for by the PVCCSP, the Riverside County Flood Control District, and the City of Perris Comprehensive General Plan 2030 and are intended to prevent additional impacts from operation of not only the proposed Project, but other similar development. Therefore, the Project would not create growth that would overwhelm or exceed existing service capacities.

Project implementation may indirectly induce population growth in the short term because it would be a new source of employment within the City. However, the extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth inducing effect of a project. Construction of the proposed Project would create short-term construction jobs which are anticipated to be filled by workers who, for the most part, reside in the Project area; therefore, construction of the proposed Project would not generate a permanent increase in population within the Project area. The workers constructing the Project are also not expected to require additional housing beyond those units which are currently available in the City, or the surrounding region.

6.3.2 Economic Growth

The long-term effect of the proposed Project would be to convert the currently vacant and underutilized site into commercial uses. The addition of commercial uses on a vacant site would cause an increase in economic activity over existing conditions. However, the Project would be consistent with the type of development anticipated in the PVCCSP, which aims to bolster the City's economy through local serving development and new jobs. Ultimate development of the Project would create long-term environmental consequences that are connected with any form of urbanization. However, the proposed Project has been designed to benefit the community and population by providing increased opportunities for

employment in closer proximity to residential development and would ultimately provide for a form of long-term productivity which appears compatible with human needs in the area.

6.3.3 Removing Obstacles to Growth

The removal of either physical or regulatory obstacles to growth is considered to be a growth-inducing impact. A physical obstacle to growth typically involves the lack of public service and/or utility infrastructure. A project would trigger growth if it would result in infrastructure with excess capacity or if it would remove an obstacle to growth in an area, such as providing infrastructure to an area that was previously not available. The Project site is located in in a developed area currently served by existing public services.

The Project includes a Specific Plan Amendment to make the Project consistent with the site's land use designation and zoning. The PVCCSP designates the Project site as a Commercial land use and zone, which is defined as a zoning designation that provides for retail, professional office, and service-oriented business activities that serve the entire City, as well as the surrounding neighborhoods. The proposed amendment to the PVCCSP would add self-storage facilities to the list of permitted uses within the Commercial land use designation. While the Specific Plan Amendment would expand the allowable land uses in other parcels designated for Commercial development, the amendment would not necessarily constitute a change that would result in unplanned growth elsewhere within the PVCC area. Self-storage uses have a lower trip generation rate than other Commercial uses. As a result, while the amendment would expand the uses allowed under the Commercial land use designation, the addition of self-storage uses would not result in unplanned growth.

The Project does not include the extension or expansion of public services beyond connections or upgrades to the existing infrastructure in the immediate vicinity that are required to serve the Project. The Project would connect to existing utilities, including water, sewer, stormwater, electrical, telecommunication services, and natural gas. These connections would provide utility services to the proposed uses but would not expand the capacity of the utilities such that future development would be induced to the area. The Project would not result in the need for new or physically altered facilities related to fire, police, schools, or libraries. Refer to Chapter 7.0, *Effects Found Not to be Significant*, for further details.

The Project developer(s) would construct roadway improvements on Ramona Expressway and Webster Avenue consistent with the PVCCSP. These are improvements to existing roadways that would improve safety and connectivity but would not provide access to previously inaccessible areas such that they would facilitate future development elsewhere. As such, proposed roadway improvements would not trigger growth in the area.

Based on the above, the Project would not remove obstacles to growth by extending infrastructure to new areas, nor would it result in significant adverse environmental impacts beyond those analyzed in this EIR due to the expansion of infrastructure such as water supply facilities, wastewater treatment plants, roads, or freeways.

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7.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

An analysis of the proposed Project's effect on the environmental topic areas included in the Environmental Checklist form in State CEQA Guidelines Appendix G was conducted as part of the preparation of the Initial Study included in Appendix A f this Draft EIR. During this evaluation, certain aspects of the Project were found to have no impact, a less than significant impact, or a less than significant impact with mitigation. The effects determined not to be significant are not required to be included in the primary analysis sections of the Draft EIR.

CEQA Section 21100(c) states that an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. State CEQA Guidelines Section 15128 adds, "Such a statement may be contained in an attached copy of an Initial Study."

The complete Initial Study prepared for the proposed Project, included in Appendix A, concluded that the proposed Project would not result in significant impacts to the following environmental topics or portions of those topics as described below. In accordance with State CEQA Guidelines Section 15128, the following section provides a brief description of potential impacts found to be less than significant or less than significant with mitigation and additional detail is provided in the appended Initial Study. In some cases, the Project would have no impact. The specific issue areas and thresholds below are not discussed further within the body of this Draft EIR.

7.1 Summary of Effects Found Not to be Significant

7.1.1 Aesthetics

a) Would the Project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The Project site is relatively flat and undeveloped with little topographical change and sparse vegetation. Development at the Project site would include commercial land uses and associated parking and landscaping bordering Ramona Expressway and Webster Avenue, which are east-west and north-south trending roadways, respectively, within the Visual Overlay Zone of the PVCCSP. I-215 is also within the Freeway Corridor of the PVCCSP Visual Overlay Zone and motorists traveling along I-215 would have views of the Project site; however, this is not within the viewshed of a scenic vista. While development of the Project may obstruct views to the foothills from at least some vantage points, the Project site is located within the boundaries of the PVCC and would not adversely impact a scenic vista given there are no scenic vistas available from the PVCC. Furthermore, the building design would be consistent with land use development regulations, including the PVCCSP design standards described above. The Project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Project site is vacant and does not contain scenic resources such as trees, rock outcroppings, or historic buildings. Further, while there are three officially designated state scenic highways in Riverside County, including SR 62, SR 74, and SR 243, none of these designated state scenic

highways have views of the Project site given that the nearest state scenic highway is SR 74, approximately four miles from the Project site (California Department of Transportation [Caltrans] 2023). Thus, as the Project site is not visible from an officially designated state scenic highway and no unique scenic resources exist onsite, there would be no impact to scenic resources within a state scenic highway.

c) In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. Development immediately surrounding the vacant and undeveloped Project site includes a gas station, single-family residential uses, commercial retail development, and warehouse buildings, as well as vacant and undeveloped land. The Project site is zoned for commercial uses and proposes development consistent with that designation. The addition of a self-storage facility to the allowable land uses within the Commercial land use designation would not result in substantially altered visual effects than would occur with other commercial development. The Project would also comply with applicable site development criteria contained within the PVCCSP, such as height limitations and setbacks as well as guidelines for projects within the Visual Overlay Zone. Therefore, although the Project site would be converted from a vacant lot to a developed commercial site, this conversion is consistent with surrounding existing and planned land uses, as identified in the PVCCSP, and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Impacts would be less than significant.

d) Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Existing lighting in the Project vicinity includes streetlights and vehicle lights along surrounding roadways, as well as interior and exterior building lighting emanating from the developed commercial and industrial sites. The Project would introduce new lighting at a vacant site without existing light sources; however, land uses and roadways surrounding the Project site generate light in the Project vicinity. Project lighting is anticipated to include a combination of operational, street, and security lighting on building exteriors and in parking areas that would conform to the California Building Standards Code, Title 24, and City standards that regulate outdoor lighting. Compliance with the requirements of the PVCCSP related to building materials would ensure that glare does not create a nuisance to on- and off-site viewers of the Project site or aircraft traveling to or from MARB/IPA. During construction, lights may be used within the construction areas, notably the construction staging areas, to provide security for construction equipment and construction materials. While construction lighting would not result in substantial light or glare for residents or motorists due to distance, the City's standard review process for nighttime lighting requests would further ensure construction lighting would not create adverse effects. Therefore, Project impacts related to glare would be less than significant.

7.1.2 Agriculture and Forestry Resources

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. According to the Farmland Mapping and Monitoring Program online mapping database (California Department of Conservation 2022), the Project site is classified as Farmland of Local Importance and does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). While the undeveloped Project site would be converted from vacant to developed land, the conversion would not include the loss of active farmland. As there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) at the Project site, no impact would occur in relation to this issue.

b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. As stated above, the Project site is located in an area classified by the Department of Conservation as Farmland of Local Importance where no active farmland nor agricultural resources are present. Additionally, the Project site is not within an established agricultural preserve consisting of at least 20 acres of Prime Farmland or at least 40 acres of land not designated as Prime Farmland. Further, the Conservation Element of the General Plan does not map Williamson Act land within the Project site (City 2008). Finally, the Project site is zoned Commercial in the PVCCSP. Therefore, the Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract and no impact would occur.

c) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. There are no trees within the Project site and the Project site is not zoned for forest land or timberland. Therefore, the proposed Project would not conflict with existing zoning for forest land or timberland. No impact to forest land, timberland, or timberland zoned Timberland Production would occur.

d) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As stated above, there is no concentration of trees on the site that would constitute a forest. The site has not been historically and is not currently used or planned to be used for forest land. As such, implementation of the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur in relation to this issue.

e) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As stated above, the Project site is located within an area classified as Farmland of Local Importance, but no agricultural resources are present on the Project site or immediate vicinity. Additionally, there is no concentration of trees that would constitute a forest within the Project site. The

proposed Project would result in the conversion of the undeveloped Project site to a developed use, but the Project site does not contain agriculture or forest uses under existing conditions. Therefore, implementation of the Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur in relation to this issue.

7.1.3 Biological Resources

a) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. Surveys of the Project site were conducted by Principe and Associates as part of the MSHCP Consistency Analysis and by HELIX Environmental Planning for the Crotch's Bumble Bee Habitat Assessment. Based on their observations, the site is currently undeveloped and comprised of disturbed non-native grasslands. Native vegetation and habitats within the site have been eliminated due to long-term disturbances associated with agricultural and weed abatement activities. No special-status plant species have the potential to occur within the Project site and no impact to special-status plant species would occur as a result of the Project. Given that no listed wildlife species have the potential to occur within the Project site based on the lack of habitat, no impact to these species or their habitats would occur.

The Project site provides potential nesting habitat for a variety of birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Vegetation removal during the nesting season (generally February 1st - August 31st although the nesting season may be extended due to weather and drought conditions) has the potential to result in adverse effects on nesting birds, if present, and impacts to nesting birds would be potentially significant. Implementation of Project mitigation measure MM BR 1 (replacing PVCCSP EIR mitigation measure MM Bio 1 per direction from the California Department of Fish and Wildlife) would reduce potential impacts to a less than significant level.

Project Mitigation Measures:

MM BR 1 In order to avoid violation of the MBTA and the California Fish and Game Code, site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the Project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species.

If site-preparation activities are proposed during the nesting/breeding season, the Project proponent shall retain a qualified biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the Project to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone.

If active nests are not located within the Project site and an appropriate buffer of 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or 100 feet of sensitive or protected songbird nests, then construction may be conducted during the nesting/breeding season. However, if active

nests are located during the pre-activity field survey, then the biologist shall immediately establish a conservative avoidance buffer surrounding the nest based on their best professional judgement and experience. The biologist shall monitor the nest at the onset of project activities, and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping.

b) *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No Impact. As described above, the Project site consists of non-native grasslands. No riparian habitats or other sensitive natural communities were identified within the Project site by Principe and Associates biologists. Given that no riparian or riverine areas occur on the Project site, no impacts to riparian habitat or other sensitive natural communities would occur.

c) *Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. According to the biological evaluation conducted for the Project (Appendix A of Appendix A), there are no state or federally protected wetlands within the Project site. In addition, no riparian or riverine resources protected by the MSHCP occur within the Project site. As such, a substantial adverse effect on state or federally protected wetlands would not occur as a result of the Project. There would be no impact.

d) *Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Impact. The Project site is not located within an MSHCP Criteria Cell Group, Conservation area or other designated wildlife corridor. The Project site is bordered by Ramona Expressway followed by a mix of vacant and undeveloped land to the south, industrial uses to the north, a mix of commercial and residential uses to the east, and I-215 to the west. The Project site is not located near open space or native habitat and does not represent a wildlife movement corridor. Therefore, the Project would not result in interference with wildlife movement. There would be no impact.

e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Protected biological resources are not present within the site, and the proposed Project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur.

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant Impact. The MSHCP is the habitat conservation plan applicable to the Project. The Project site is not located within an area dedicated to habitat conservation under the MSHCP and no habitat mitigation would be required. In addition, no riparian, riverine, or vernal pools are located within the Project site and the site is outside of survey areas for protected species. The Project site is not located within or adjacent to an MSHCP Conservation Area. Therefore, the Project would not conflict with the MSHCP and impacts would be less than significant.

7.1.4 Cultural Resources

a) Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. Based on the results of the cultural resources assessment conducted for the Project (Keller 2023; Appendix C of the Initial Study), while 38 cultural resource properties have been recorded within a one-mile radius of the Project site, no known historical resources are present within the Project site. As there are no structures within the site, no built environment historical resources would be affected by Project construction. No historical resources are known to occur within the Project site and the Project would not cause a substantial adverse change in the significance of a historical resource. No impact would occur.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. As described above, no known cultural resources are present on the Project site. In addition, the majority of resources identified within one mile of the Project site during the records search are historic period resources rather than archaeological resources. Therefore, no archaeological resources are anticipated to occur within the site and Project construction is not anticipated to disturb archaeological resources. However, ground disturbing activities have the potential to encounter previously undiscovered archaeological resources, which could result in a potentially significant impact. Therefore, Project mitigation measure MM CR 1 shall be implemented to ensure that ground-disturbing activities are monitored by a professional archaeologist and that any unearthed archaeological resources are salvaged and treated appropriately. Project mitigation measure MM CR 1 implements PVCCSP EIR mitigation measures MM Cultural 2 through MM Cultural 4 as subsequently revised by the City of Perris. Implementation of Project mitigation measure MM CR 1 would reduce the impact to a less than significant level.

Project Mitigation Measures:

MM CR 1 Prior to the issuance of grading permits, the Project proponent/developer shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeology (U.S. Department of Interior, 2012; Registered Professional Archaeologist preferred). Selection of the Project Archaeologist shall be subject to the approval of the City of Perris Director of Development Services and no ground-disturbing activities shall occur at the site or within the off-site Project improvement areas until the Project Archaeologist has been approved by the City.

The Project Archaeologist shall be responsible for monitoring ground-disturbing activities, including initial vegetation removal, maintaining daily field notes and a photographic record, and for reporting all finds to the developer and the City of Perris in a timely manner. The archaeologist shall be prepared and equipped to record and salvage cultural resources that may be unearthed during ground-disturbing activities and shall be empowered to temporarily halt or divert ground-disturbing equipment to allow time for the recording and removal of the resources.

In the event that archaeological resources are discovered at the Project site, the handling of the discovered resource(s) will differ, depending on the nature of the find. Consistent with California Public Resources Code Section 21083.2(b) and Assembly Bill 52 (Chapter 532, Statutes of 2014), avoidance shall be the preferred method of preservation for Native American/tribal cultural/archaeological resources. However, it is understood that all artifacts, with the exception of human remains and related grave goods or sacred/ceremonial/religious objects, belong to the property owner. The property owner shall commit to the relinquishing and curation of all artifacts identified as being of Native American origin. All artifacts, Native American or otherwise, discovered during the monitoring program shall be recorded and inventoried by the consulting archaeologist.

If any artifacts of Native American origin are discovered, all activities in the immediate vicinity of the find (within a 50-foot radius) shall stop and the Project proponent and Project archaeologist shall notify the City of Perris Planning Division, the Soboba Band of Luiseño Indians, the Rincon Band of Luiseño Indians, the Agua Caliente Band of Cahuilla Indians, and the Pechanga Band of Indians. A designated Native American representative from either the Soboba Band of Luiseño Indians, the Rincon Band of Luiseño Indians, the Agua Caliente Band of Cahuilla Indians, or the Pechanga Band of Indians shall be retained to assist the Project archaeologist in the significance determination of the Native American as deemed possible. The designated tribal representative will be given ample time to examine the find. The significance of Native American resources shall be evaluated in accordance with the provisions of CEQA and shall consider the religious beliefs, customs, and practices of the tribe. If the find is determined to be of sacred or religious value, the tribal representative will work with the City and consulting archaeologist to protect the resource in accordance with tribal requirements. All analysis will be undertaken in a manner that avoids destruction or other adverse impacts.

In the event that human remains are discovered at the Project site or within the off-site Project improvement areas, mitigation measure MM CR 2 shall immediately apply and all items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling.

Native American artifacts that are relocated/reburied at the Project site shall be subject to a fully executed relocation/reburial agreement with the assisting tribe. This shall include, but not be limited to, an agreement that artifacts shall be reburied onsite and in an area of permanent protection, and that reburial shall not occur until all cataloging and basic recordation have been completed by the consulting archaeologist.

Native American artifacts that cannot be avoided or relocated at the Project site shall be prepared for curation at an accredited curation facility in Riverside County that meets federal standards (per 36 Code of Federal Regulations Part 79) and available to archaeologists/researchers for further study. The Project archaeologist shall deliver the Native American artifacts, including title, to the identified curation facility within a reasonable amount of time, along with applicable fees for permanent curation.

Non-Native American artifacts shall be inventoried, assessed, and analyzed for cultural affiliation, personal affiliation (prior ownership), function, and temporal placement. Subsequent to analysis and reporting, these artifacts will be subjected to curation, as deemed appropriate, or returned to the property owner.

Once grading activities have ceased and/or the archaeologist, in consultation with the designated Native American representative, determines that monitoring is no longer warranted, monitoring activities can be discontinued following notification to the City of Perris Planning Division.

A report of findings, including an itemized inventory of artifacts, shall be prepared upon completion of the tasks outlined above. The report shall include all data outlined by the Office of Historic Preservation guidelines, including a conclusion of the significance of all recovered, relocated, and reburied artifacts. A copy of the report shall also be filed with the City of Perris Planning Division, the University of California, Riverside, Eastern Information Center and the tribe(s) involved with the Project.

c) Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant with Mitigation Incorporated. The proposed Project site has been historically used for agriculture and has been vacant since at least 1966 according to aerial imagery. No known cemetery use has occurred at the Project site; therefore, the Project site is not expected to contain human remains, including those interred outside of formal cemeteries. However, in the unlikely event that human remains are discovered during construction, disturbance of the remains would result in a potentially significant impact. Project mitigation measure MM CR 2 would be implemented to require all activities in the vicinity of the remains to occur in compliance with California Health & Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. Project mitigation measure MM CR 2 implements PVCCSP EIR mitigation measure MM Cultural 6, as subsequently revised by the City of Perris, and would reduce impacts to human remains to a less than significant level.

Project Mitigation Measures:

MM CR 2 In the event that human remains (or remains that may be human) are discovered at the Project site during ground-disturbing activities, the construction contractors and Project archaeologist, and/or designated Native American tribal representative shall immediately stop all activities within 100 feet of the find. The Project proponent shall then inform the Riverside County Coroner and the City of Perris Planning Division immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b).

If the coroner determines that the remains are of Native American origin, the coroner will notify the Native American Heritage Commission (NAHC), which will identify the Most Likely Descendent (MLD). Despite the affiliation with any Native American tribal representative(s) at the site, the NAHC's identification of the MLD will stand. The MLD shall be granted access to inspect the site of the discovery of the Native American human remains and may recommend to the Project proponent means for treatment or disposition, with appropriate dignity of the human remains and any associated grave goods. The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains will be determined in consultation between the Project proponent and the MLD. In the event that there is disagreement regarding the disposition of the remains, state law will apply and median with the NAHC will make the applicable determination (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

The specific locations of Native American burials and reburials would be proprietary and not disclosed to the general public. The locations will be documented by the consulting archaeologist in conjunction with the various stakeholders and a report of findings shall be filed with the Eastern Information Center.

7.1.5 Energy

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less Than Significant Impact. During construction, the Project would temporarily consume energy in the form of fuels for the operation of construction equipment and vehicles. Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed Project would not result in wasteful, inefficient, and unnecessary consumption of energy. During operation, the Project would consume energy in the forms of electricity for building operations and fuels for equipment use and mobile trips, as discussed in the Project's Energy Analysis (Appendix D of Appendix A). For operational energy use, the Project would be required to meet CCR Title 24 standards and the CALGreen Code, which aim to reduce building energy consumption through sustainable building practices. Compliance with Title 24 and CALGreen standards as well as PVCCSP design standards and guidelines would ensure the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. While impacts related to energy would not be significant,

implementation of PVCCSP EIR mitigation measures MM Air 19 and MM Air 20 would further reduce the Project's energy consumption. Impacts would be less than significant.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The Project would not conflict with state or local plans for renewable energy efficiency, such as Title 24 and CALGreen. The Project would employ standard methods of construction and would comply with regulations that limit idling from diesel-powered equipment (CCR Title 13, Sections 2449 and 2485). The Project would comply with Title 24 energy efficiency standards. While impacts related to energy would not be significant, implementation of PVCCSP EIR mitigation measures MM Air 19 and MM Air 20 would reduce the Project's energy consumption beyond regulatory standards. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

7.1.6 Geology and Soils

a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact. The City, like the rest of southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. However, as discussed in the Geotechnical Interpretive Report (Appendix E of Appendix A), the Project site is not within an Alquist-Priolo Fault Zone. The San Jacinto Fault Zone is the nearest Alquist-Priolo Earthquake Fault Zone to the Project site and is located approximately 8.5 miles east of the Project site. Due to this distance, the Project would not be subjected to fault rupture associated with an Alquist-Priolo Fault Zone. No other faults are known to traverse the Project site. No impact associated with fault rupture would occur at the Project site.

ii. Strong seismic ground shaking?

Less Than Significant Impact. The Project site is located in a seismically active region and ground shaking is likely to occur at the site within the life of the proposed Project. Engineering and construction of the Project would be required to be in conformance with the California Building Code and other applicable standards. Given conformance with standard engineering practices and design criteria, the Project would not directly or indirectly cause adverse effects related to seismic ground shaking. Impacts associated with seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The Preliminary Geotechnical Interpretive Report concluded that the Project site is in an area with low potential for liquefaction hazards due to the lack of groundwater within 50 feet of the ground surface (Appendix E of Appendix A). Also, the Project site is identified in the City's General Plan to be an area of low liquefaction susceptibility (City 2021). Therefore, impacts related

to exposing people or structures to seismic-related ground failure, including liquefaction, would be less than significant.

iv. Landslides?

No Impact. The Project site is relatively flat and there are no hillsides or steep topographic features at the site or in surrounding areas. According to the City's General Plan Safety Element, the Project site is not located within an area with high susceptibility to seismically induced landslides and rockfalls (City 2021). As such, there would be no impact related to landslides as a result of the proposed Project.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Soil exposed by construction activities, particularly clearing and grading, could be subject to erosion if exposed to heavy rain, winds, or other storm events. Compliance with South Coast AQMD Rule 403 (Fugitive Dust) and PVCCSP EIR mitigation measure MM Air 3 would include implementation of soil stabilization measures, such as daily watering, and compliance with the National Pollutant Discharge Elimination System Construction General Permit would include implementation of the City's standard erosion control practices, such as silt fencing, fiber rolls, or sandbags. Further, the California Building Code requires an erosion control and grading plan prior to issuance of a grading permit as a means to minimize soil erosion to the extent practicable during both construction and operation. Once operational, the Project site would include some impervious or semi-impervious features, that if not designed properly could allow for stormwater to sheet flow and consequently erode soils. However, the preparation of a Water Quality Management Plan (WQMP) would describe the management of stormwater flows so as to not carry soils and sediments. Additionally, the Project's storm drain and storage facilities would capture storm flows that could otherwise erode loose soils and pump them to a bioswale that would treat runoff. Therefore, compliance with the various permits and regulations related to water quality and erosion would reduce Project impacts to less than significant levels and no mitigation would be required.

c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. The Project site is not located within an area that is subject to landslides or liquefaction, thus impacts related to landslides and liquefaction would not occur (Appendix E of Appendix A). The Perris Valley is susceptible to subsidence in various portions of the region. However, impacts related to lateral spreading, subsidence, or collapse would not be significant because the proposed Project would not be subject to liquefaction, which is associated with the potential for other subsidence events, and would comply with the California Building Code building safety design standards. Therefore, impacts related to geologic instability would be less than significant and no mitigation would be required.

d) *Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property*?

Less Than Significant Impact. The majority of soil that underlies the Project site has a very low to low potential for shrinking and swelling (Appendix E of Appendix A). Furthermore, adherence to standard engineering practices contained within the California Building Code would reduce the potential for adverse effects related to soil expansion to occur. Impacts would be less than significant.

e) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed Project does not include or require the use of septic tanks or alternative wastewater disposal systems. Existing sewer infrastructure existing in the Project site vicinity would serve the Project. No impact would occur.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. According to the City General Plan Conservation Element Figure CN-7 (City 2008), the Project site is located within an area identified as highly sensitive for the discovery of paleontological resources. Based on the ground disturbance necessary to complete the Project, there is potential for the Project to result in significant impacts to unique paleontological resources within Pleistocene-aged alluvial deposits, either at the surface or at depth. Because of the high paleontological sensitivity at the Project site and at the recommendation of the Paleontological Resources Memorandum (Appendix F of Appendix A), Project mitigation measures MM GR 1 and MM GR 2 shall be implemented to reduce potential impacts to less than significant levels. Project mitigation measure MM GR 1 implements PVCCSP EIR mitigation measure MM Cultural 5, as subsequently revised by the City of Perris. Impacts would be less than significant with the incorporated mitigation measures.

Project Mitigation Measures:

MM GR 1 Prior to the issuance of grading permits, the Project applicant shall submit to and receive approval from the City, a Paleontological Resource Impact Mitigation Monitoring Program. The Paleontological Resource Impact Mitigation Monitoring Program shall include the provision for a qualified professional paleontologist (or his or her paleontological monitor representative) to be onsite or any Project-related excavations. Selection of the paleontologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the Project site or the off-site Project improvement areas until the paleontologist has been approved by the City.

Monitoring shall be restricted to undisturbed subsurface areas of older Quaternary alluvium, which might be present below the surface. The paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The paleontologist shall also remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall have the power to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens.

Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved. Specimens shall be identified and curated and placed into an accredited repository (such as the Western Science Center or the Riverside Metropolitan Museum) with permanent curation and retrievable storage.

A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a

discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to paleontological resources.

MM GR 2 Prior to the start of construction, a paleontological resources worker environmental awareness program training shall be presented to all earthmoving personnel to inform them of the possibility for buried resources and the procedures to follow in the event of fossil discoveries.

7.1.7 Hazards and Hazardous Materials

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Potentially hazardous materials (e.g., fuel, lubricants, and solvents) may be used during construction activities. Hazardous materials used during Project construction would be transported, used, and stored in accordance with state and federal regulations regarding hazardous materials. With mandatory compliance to applicable hazardous materials regulations, the Project would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. Potential impacts related to hazardous materials during construction would be less than significant and no further evaluation is required.

Operation of the proposed Project would involve the use of materials common to urban development that are labeled hazardous (e.g., solvents and commercial cleansers; petroleum products; and pesticides, fertilizers, and other landscape maintenance materials). The proposed self-storage, restaurant, convenience store, and car wash uses are not anticipated to use acutely hazardous materials during operations but each future tenants would be required to comply with applicable federal, state, and local laws and regulations regarding the transport, use, and storage of hazardous materials, as discussed further below.

The Project would result in the routine transport and use of retail fuels, as the Project includes two gas stations. All fuel tanks and dispensers would be equipped with the latest Phase I and Phase II Enhanced Vapor Recovery air pollution control equipment technology as required by CARB regulations and associated Executive Orders. There are no sensitive receptors located within 50 feet of the proposed gas station locations. Therefore, operations associated with the proposed gas station uses would not result in substantial hazards to the public or environment.

Hazardous materials or wastes stored on site would be subject to requirements associated with accumulation time limits, amounts, and proper storage locations and containers, and proper labeling. Based on compliance with applicable regulations, operation of the Project would not create a significant risk to the public or the environment through the potential routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Hazardous materials releases could occur if existing hazardous materials at the Project site would be disturbed by Project construction or operation, or if future Project

construction or operation activities involve the handling of substantial amounts of hazardous materials with a potential to result in upset and accident conditions. No Recognized Environmental Conditions were documented or identified in the Phase I Environmental Site Assessment (ESA) related to potentially hazardous materials (Appendix G of Appendix A). Therefore, PVCCSP EIR mitigation measure MM Haz 7 is not required for the proposed Project.

During the temporary, short-term construction period, there is the possibility of accidental release of hazardous substances such as spilling of hydraulic fluid or diesel fuel associated with construction equipment maintenance. The construction contractor would be required to use standard construction controls and safety procedures to avoid or minimize the potential for accidental release of such substances into the environment. Further, Project operations would involve standard commercial activities and while it is possible that hazardous materials could be used by a future occupant's daily operations, these operations would be required to occur in compliance with all applicable local, state, and federal regulations related to the transport, handling, and usage of hazardous materials. The delivery of fuels for the proposed gas stations would occur in compliance with applicable regulations intended to prevent accidents during transport and delivery of gasoline and diesel fuels. Therefore, the impact of the proposed Project with respect to exposing the public or the environment to hazardous materials through upset and accident conditions would be less than significant.

c) *Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact. The Project site is not located within one-quarter mile of a school, as the schools nearest to the Project site are approximately 0.36 mile south of the Project site (Val Verde Academy, Val Verde High School, and the Val Verde Regional Learning Center). Furthermore, the use of hazardous materials at the Project site would be in accordance with applicable standards and regulations. Therefore, no impact related to the handling of hazardous materials within one-quarter mile of a school would occur.

d) *Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Impact. The State Water Resources Control Board GeoTracker database (2023) and the California Department of Toxic Substances Control EnviroStor database (2023) are databases compiled pursuant to Government Code Section 65962.5 (Cortese List) requirements and were searched for hazardous materials sites within and surrounding the Project site. The Phase I ESA identified one EnviroStor record located over 0.25 mile south of the Project site; based on distance and direction, the site would not be considered an environmental concern to the Project (Appendix G of Appendix A). The Phase I ESA also completed a GeoTracker search which revealed no incidents at or in the immediate vicinity of the Project site. The Project site is not located on or within 1,000 feet of an active hazardous materials site according to these databases. Therefore, no impact related to hazardous materials sites is anticipated.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project site?*

Less Than Significant Impact. The nearest airport to the Project site is MARB/IPA, located approximately one mile to the north. The Perris Valley Airport is located approximately 5.3 miles south of the Project site and the Project site is not located within the Airport Influence Area Boundary for this airport

(Riverside County Airport Land Use Commission [ALUC] 2011). However, the proposed Project site is located within the ALUCP area for MARB/IPA (Riverside County ALUC 2014), the 2018 AICUZ Study (MARB 2018), and the PVCCSP AOZ (County of Riverside 2023). The Project site is within Zone C1 per the MARB/IPA ALUCP. The Project site is not within an Accidental Potential Zone. The Project site is outside of the 60 decibel (dB) CNEL noise contours for MARB/IPA (MARB 2018). Noise impacts associated with aircraft activity are evaluated further in Section XIII, *Noise*, and would not be considered significant for the proposed land uses. The proposed land uses do not include any prohibited uses of the MARB/IPA ALUCP for Zone C1, such as children's schools, libraries, and day care centers. The Riverside County ALUC reviewed the Project and confirmed the consistency of the proposed Project with the ALUCP in a hearing on July 11, 2024 (Riverside County ALUC 2024). Typical conditions were placed on the Project as a result of the ALUC review and include light shielding, tenant notification, and ALUC notification requirements as well as prohibition of specific uses not proposed by the Project. As the Project does not include discouraged uses within Zone C1, impacts associated with aircraft safety would be less than significant. The proposed Project would be required to comply with PVCCSP EIR mitigation measures MM Haz 2 through MM Haz 5, which are consistent with the types of conditions provided by ALUC, to avoid potential impacts associated with MARB/IPA operations. Therefore, impacts related to noise and hazards from aircraft operations would be less than significant and no Project-specific mitigation would be required.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The City participates in the Riverside County Multiagency Multi-Hazard Functional Plan, which outlines requirements for emergency access and standards for emergency responses. Access to the Project site would be via Webster Avenue and Ramona Expressway. During construction of the Project, heavy construction vehicles could interfere with emergency response to the site or emergency evacuation procedures in the event of an emergency (e.g., vehicles traveling behind the slow-moving truck). However, such delays would be brief and infrequent. Moreover, as required in the City's Municipal Code Section 10.12.100, no street shall be closed or partially obstructed, or detours established, without approval of the City's traffic engineer. The Project would provide driveways and internal circulation elements consistent with applicable policies related to emergency access. As a result, the Project's impacts would be less than significant.

g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. According to the Safety Element of the City's General Plan, wildfires typically pose minimal threat to people and buildings in urban areas but increasing human encroachment into natural areas increases the likelihood of bodily harm or structural damage. This encroachment occurs in areas called the wildland-urban interface, which is considered an area within the high and very high fire hazard severity zone (VHFHSZ), as defined by the California Department of Forestry and Fire Protection. The City of Perris General Plan Safety Element Wildfire Hazards map shows that the Project site is not located in a VHFHSZ (City 2021). Therefore, the proposed Project would not expose people or structures to wildland fires. No impacts associated with wildland fires would occur.

7.1.8 Hydrology and Water Quality

a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Construction of the proposed Project would include grading, which may have the potential to release pollutants (e.g., oil from construction equipment, cleaning solvents, paint) and silt off-site which could impact water quality. During operation, the discharge of minor amounts of fuels or other pollutants associated with automobiles into storm drains during rain events may occur. The proposed Project would incorporate site design, source control, and treatment control best management practices (BMPs) to address storm water runoff during operation and would implement BMPs during construction in accordance with a Storm Water Pollution Prevention Plan (SWPPP) and during operation in accordance with a WQMP. Thus, through the BMPs and compliance with existing regulations such as the implementation of the WQMP, the proposed Project would not violate water quality standards or waste discharge requirements. Therefore, potential impacts would be less than significant.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. While the majority of the site would become impermeable after development, Project design features and BMPs such as the use of impervious or semi-pervious materials and the use of landscaping would facilitate some groundwater recharge and percolation. In addition, due to the proposed Project site's small size in relationship to the total size of the San Jacinto Groundwater Basin (approximately 188,000 acres), there would not be a substantial effect upon groundwater recharge within the groundwater basin. Furthermore, the Project would rely on domestic water supply, would not require the use of groundwater sources, and would not substantially deplete groundwater supplies. Therefore, potential impacts would be less than significant.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

iv. Impede or redirect flood flows?

Less Than Significant Impact. Due to the increase in impervious surfaces that would be constructed on the site, the Project has been designed with underground storage to offset the difference in runoff volume between the developed and pre-developed condition. Onsite site soils have tested infiltration potential less than the required level, so bio swales are proposed along the southern portion of the site to provide water quality treatment. De-watering of the underground storage would be provided by a

pumping system. In addition to the underground storage, a system of storm drains is proposed to collect and route Project site runoff to outlet at the southeast corner of the Project site. Since the onsite runoff would be accommodated by onsite storage facilities and would utilize an existing channel and storm drain facility, the proposed Project would not substantially alter the existing drainage pattern of the site or area, in a manner which would result in substantial erosion or siltation, flooding, exceedance of stormwater drainage capacity, or redirection of flood flows. Thus, impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation?

No Impact. According to the Safety Element of the City General Plan, the Project site is not located within a Special Flood Hazard Area Inundated by 100 Year Flood Zone or within a Dam Inundation Area (City 2021). The proposed Project site is located approximately 35 miles from the Pacific Ocean; therefore, risks from a tsunami are not present for the Project site. A seiche is a standing wave in an enclosed or partly enclosed body of water. Seiches are normally caused by earthquake activity, and can affect harbors, bays, lakes, rivers, and canals. The nearest enclosed body of water, Lake Perris, is approximately 3 miles away, which is too far to result in inundation at the Project site during a seiche event. No impact related to the release of pollutants due to tsunamis or seiches would occur.

e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. Implementation of the Project would not have a substantial effect on groundwater recharge within the overlapping Perris North Groundwater Management Zone of the West San Jacinto Groundwater Sub-basin. Under the Sustainable Groundwater Management Act passed in 2014 (California Water Code Section 10729[d]), each high and medium priority basin, as identified by the California Department of Water Resources, is required to have a Groundwater Sustainability Agency that will be responsible for groundwater management and development of a Groundwater Sustainability Plan (California Department of Water Resources 2020). The EMWD Board of Directors is the Groundwater Sustainability Agency for the West San Jacinto Groundwater Sub-basin and is responsible for development and implementation of a Groundwater Sustainability Plan, which was approved in 2023. The Project would not conflict with the plan because groundwater would not be used to serve the Project. The Project would be supplied with imported, potable water and recycled water for non-potable water demands and the Project site is not within a groundwater recharge area. Therefore, the Project would not conflict with or obstruct implementation of a sustainable groundwater management plan and impacts would be less than significant. The water quality control plan applicable to the Project is the Santa Ana Regional Water Quality Control Board (RWQCB) Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), which designates beneficial uses and water quality objectives for all the ground and surface waters in the region. At the Project level, compliance with RWQCB permits and objectives through implementation of a SWPPP and WQMP prepared pursuant to RWQCB requirements would ensure the Project does not conflict with or obstruct implementation of the applicable water quality management plan. Potential impacts would be less than significant.

7.1.9 Land Use and Planning

a) Would the Project physically divide an established community?

No Impact. The Project would result in the development of an existing vacant lot that is surrounded by development and roadway facilities on all sides. The Project does not include any linear features that would extend outside of the Project site and physically divide an established community. Therefore, no impact would occur.

b) Would the Project cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed Project site is located within the City and within the PVCC planning area. Thus, land use is guided by both the Perris General Plan and the PVCCSP. The proposed Specific Plan Amendment would allow the development of a self-storage facility within the Commercial land use designation per the PVCCSP. Therefore, with approval of the proposed Specific Plan Amendment, the Project development would be consistent with the land use and zoning designations for the site and would comply with other applicable PVCCSP standards and guidelines.

Additionally, the Project would be consistent with the City's General Plan policies related to avoiding environmental impacts, as discussed in Table 3 of the Initial Study. Therefore, potential impacts would be less than significant.

7.1.10 Mineral Resources

a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Department of Conservation classifies the availability of mineral resources in a region into one of four mineral resource zone (MRZ) categories. According to the City of Perris General Plan Conservation Element, the Department of Conservation is primarily interested in the preservation of significant resources in MRZ 2 regions. The land within the City, including the Project site, is classified as MRZ 3 and MRZ 4, which are not considered to be significant mineral resource areas (City 2005). Therefore, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impacts to mineral resources would occur.

b) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As stated above, the General Plan Conservation Element does not consider the Project site to be a significant mineral resource area. Additionally, the Project site is not used for mineral extraction and is not known as a locally important mineral resource recovery site. Further, the Project site is not delineated on any plan for mineral resource recovery uses. No impacts to mineral resource availability would occur.

7.1.11 Noise

a) Would the Project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. The City's Municipal Code restricts construction to the hours of 7:00 am to 7:00 pm on any day except Sundays or applicable holidays and limits construction noise levels to a maximum noise level (L_{MAX}) of 80 A-weighted decibels (dBA) in residential zones. The Project would generate temporary increases in noise during construction. However, the Project would comply with the Municipal Code restrictions on construction hours, except during the potential nighttime paving activities, when prior approval from the City would be required. Construction noise would not exceed the 80 dBA L_{MAX} threshold for ambient noise increases. Therefore, Project construction would not result in a temporary increase in ambient noise levels in excess of the applicable standards and impacts would be less than significant. Although impacts from construction noise would be less than significant, the Project would be required to comply with PVCCSP EIR mitigation measures MM Noise 1 through MM Noise 4, which would further limit noise generated by construction equipment.

The Project's proposed gas stations, car wash, courtyard, drive-through operations, trash enclosure, storage, and parking lot would generate elevated noise levels compared to existing conditions. However, onsite According to the Project's Noise and Vibration Analysis (Appendix I of Appendix A), operation of the Project would not result in noise levels exceeding applicable standards and would not result in a substantial permanent increase in ambient noise levels. Noise levels generated by traffic on Ramona Expressway would increase by 0.2 dBA CNEL with the addition of Project traffic to existing conditions. This increase would not be a perceptible increase and would not exceed the PVCCSP EIR significance criteria. Traffic noise increases for other roadways in the Project vicinity would be less than those for this segment of Ramona Expressway. Therefore, noise impacts from onsite Project operations and Project-generated traffic would be less than significant.

b) Would the Project generate excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The maximum acceptable vibration threshold identified in the PVCCSP EIR is 0.5 inch per second peak particle velocity (PPV). Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted by the Project. The largest possible source of vibration during general Project construction activities would be a vibratory roller used for gravel or pavement compaction. At 94 feet, the distance to the nearest off-site building, a vibratory roller could generate up to 0.012 inch per second PPV (Appendix I of Appendix A), which is lower than both the "strongly perceptible" level for human response of 0.1 inch per second PPV (Caltrans 2020) and the structural damage threshold of 0.5 inch per second PPV. Therefore, temporary impacts associated with construction vibration would be less than significant. No substantial sources of vibration would be installed for operation of the Project. Impacts would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The nearest airports to the proposed Project site are MARB/IPA and the Perris Valley Airport. According to the ALUCP for the Perris Valley Airport, the Project site is not located

within the Airport Influence Area Boundary (County of Riverside 2011). However, the proposed Project site is located within the limits of the MARB/IPA ALUCP area and the AICUZ study area. The Project site falls outside of the 60 dBA CNEL noise contour identified in the AICUZ study (MARB 2018). The City General Plan states that commercial uses are normally compatible with noise levels up to 65 dBA CNEL and conditionally compatible with noise levels up to 75 dBA CNEL. The Project would therefore not result in excessive airport noise exposure. Potential impacts would be less than significant.

7.1.12 Population and Housing

a) Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The proposed Project does not include residential development and would not directly affect the number of residents in the area or contribute to the creation of additional housing within the City. The Project includes uses that would not be of a magnitude to support additional population growth in the area, as the uses are considered local serving land uses. The proposed Project would include commercial uses to serve the existing population, such as gas stations, restaurants, and a storage facility. Therefore, since the Project would serve the existing population and has no other features that would directly or indirectly induce growth, potential impacts would be less than significant and no mitigation would be required.

b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is vacant land that is not currently used for housing. The proposed Project would not remove any existing housing units and would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. There would be no impacts associated with displacing people.

7.1.13 Public Services

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

i. Fire protection?

Less Than Significant Impact. The proposed Project would include the construction and operation of commercial uses that would require fire protection services; however, no new residential uses or other uses that would increase the City's population would be involved. In compliance with Perris Municipal Code Section 19.68.020, *Development Impact Fees*, the Project applicant would be required to pay a development impact fee to fund the acquisition, design, and construction of public facilities, including fire protection facilities, necessary to serve new development within the City. Payment of the fee would be required prior to issuance of a building permit and would provide for the Project's fair share cost contribution to facilities and equipment due to the increased demand for fire protection services.

In addition, the Project would be required to comply with all applicable Building and Fire Code requirements and would submit construction plans for review and approval prior to issuance of any building permit. Implementation of all Fire Code requirements would further reduce potential impacts concerning fire protection services. Therefore, potential impacts would be less than significant.

ii. Police protection?

Less Than Significant Impact. The proposed Project would include the construction and operation of planned commercial land uses that would require police protection services; however, no new residential uses or other uses that would increase the City's population would be involved. The Project would also not represent a use that would require unique or expanded police protection services. However, the Project would pay a development impact fee that would provide for the Project's fair share cost contribution to facilities and equipment due to the increased demand for police protection services in the City. Further, as part of the development review process, Riverside County Sheriff's Department would review the Project and provide comments regarding risks to security and ways to minimize those risks. Therefore, potential impacts would be less than significant.

iii. Schools?

Less Than Significant Impact. The proposed Project involves the construction and operation of commercial facilities. It is not anticipated to introduce new residents to the Project site that would generate new students and require additional schools. As a result, the Project itself is not expected to require the construction of new or expanded school facilities; however, the Project applicant would be required to pay school impact fees to the Val Verde Unified School District in accordance with SB 50. Developer fees collected by local school districts pursuant to SB 50 are used for the provision of additional and reconstructed or modernized school facilities. Therefore, potential impacts related to schools would be less than significant.

iv. Parks?

No Impact. The proposed Project would not result in substantial increases in population and is not anticipated to result in increased use or demand on parks that would require the construction or expansion of additional park and recreational facilities. Therefore, there would be no impact.

v. Other public facilities?

No Impact. Other public facilities may include libraries, senior centers, community centers, and pools, all of which are intended to serve the general public. The proposed Project involves the construction and operation of commercial uses that would not result in increased population resulting in increased demand for these services that would require the construction or expansion of other public facilities. Therefore, there would be no impact.

7.1.14 Recreation

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed Project consists of construction and operation of commercial uses. The Project would not increase the use of or create the need for new parks and recreational facilities. Similarly, the

proposed Project would not result in physical deterioration of an existing open space area or any recreation facilities. Therefore, there would be no impact.

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed Project does not include recreational facilities with the exception of pedestrian elements providing access to the Project site. The Project would not require or result in the need to construct or expand recreational facilities in the City. Therefore, there would be no impact.

7.1.15 Transportation

a) Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. A Traffic Analysis has been prepared for the Project (Appendix J of Appendix A) in accordance with PVCCSP EIR mitigation measure MM Trans 7 and the improvements required to satisfy the remaining PVCCSP EIR mitigation measures are contained therein and have been incorporated into the Project. To further evaluate if the Project would conflict with existing circulation plans, or effectiveness of circulation, a traffic signal warrant analysis was conducted by Urban Crossroads and summarized in the Traffic Analysis. Traffic signal warrants for existing traffic conditions are based on existing peak hour intersection turning volumes. There are no applicable study area intersections that may warrant a traffic signal for existing traffic conditions. The proposed Project would include site access and roadway improvements to Ramona Expressway and Webster Avenue. The City's Circulation Element recommends a Class IV bike lane along the site's Ramona Expressway frontage and a Class II bike lane along the site's Webster Avenue frontage. Sufficient right-of-way is reserved along the Ramona Expressway frontage of the site such that a bike lane could be striped in the future. Therefore, the Project would not conflict with or preclude implementation of recommended bicycle lane improvements in the future. Further, a meandering walkway would be installed along the Project's Ramona Expressway frontage. The Project would implement improvements consistent with PVCCSP, General Plan Circulation Element, and PVCCSP mitigation measure requirements, and the Project would not conflict with circulation plans or policies. Impacts would be less than significant.

b) Would the Project conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. The proposed Project's VMT impact has been assessed in accordance with guidance from the City of Perris Transportation Impact Analysis Guidelines for CEQA. The transportation guidelines provide a framework for "screening thresholds" for when a project is expected to cause a less than significant impact without conducting a detailed VMT study. The Project components meet the Local-Serving Land Use screening criteria and the self-storage component meets the less than 500 net daily trips criteria (Appendix K of Appendix A). Therefore, a detailed VMT study is not required and impacts related to VMT would be less than significant.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The Project site is within the influence area of MARB/IPA and does not include design features that would increase traffic hazards. The Project is consistent with the onsite and

surrounding land use and zoning designations, and implementation of the Project would not introduce incompatible uses to the Project site. Improvements related to safety contained in PVCCSP EIR mitigation measure MM Trans 2 would ensure that adequate site distance is provided at each Project access location. Additionally, prior to the issuance of final occupancy, City staff would ensure that signing/striping are implemented in conjunction with the detailed construction plans for the Project site and off-site improvement area. The Project incorporates circulation design recommendations and would not create dangerous curves our intersections. During construction, the proposed Project would comply with all local regulations regarding temporary road closures and/or one-way traffic controls. Impacts would be less than significant.

d) Would the Project result in inadequate emergency access?

Less Than Significant Impact. A significant impact would occur if the design of the proposed Project would not satisfy emergency access requirements of the Riverside County Fire Department or in any other way threaten the ability of emergency vehicles to access and serve the Project site or adjacent uses. The proposed Project would not result in inadequate emergency access. Site access for personal vehicles would be provided via four driveways along Ramona Expressway and two driveways along Webster Avenue. Driveways 2 and 4 along Ramona Expressway and Driveway 6 along Webster Avenue would be right-in/right-out driveways, while the remaining driveways would be full access driveways. The driveways are of standard size to accommodate passenger cars and trucks. All access features are subject to the City of Perris design requirements, including the Fire Department's requirement of a minimum 20-foot width for driveways. Because of this, emergency vehicles would be able to access the Project site. Impacts associated with this issue would be less than significant.

7.1.16 Tribal Cultural Resources

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated. There are no known tribal cultural resources present within the Project site and the contacted Tribes did not request monitoring at the site. Therefore, no change in the significance of tribal cultural resources is anticipated to occur as a result of the Project. However, a qualified archaeologist would be retained to serve as the Project Archaeologist in accordance with Project mitigation measure MM CR 1. Project mitigation measure MM CR 1, provided in Section V, implements PVCCSP EIR mitigation measures MM Cultural 2 through MM Cultural 4, as subsequently revised by the City of Perris. In the unlikely event that human remains are discovered during construction, all activities in the vicinity of the remains would cease and the NAHC would be

contacted pursuant to California Health & Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and Project mitigation measure MM CR 2. In accordance with the requirements of AB 52, the City, as the Lead Agency, will notify the tribes identified by the NAHC and provide the proposed mitigation to review. With completion of consultation pursuant to Assembly Bill 52 and implementation of Project mitigation measures MM CR 1 and MM CR 2, potential impacts to tribal cultural resources would be less than significant.

7.1.17 Utilities and Service Systems

a) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. The Project site is located adjacent to existing industrial and commercial development that require utility connections similar to those necessary to serve the Project. Therefore, the Project's utility improvements primarily consist of off-site connections within developed roadways and onsite improvements to connect utilities to each of the proposed buildings as needed. No additional improvements are needed to existing water lines, sewer lines, or treatment facilities to serve the Project. Standard connection fees would address any incremental impacts of the Project. Electric, natural gas, and telecommunications connections would occur east of Webster Avenue and would be pulled throughout the Project site. The Project applicant would be required to provide all necessary onsite infrastructure and pay applicable connection fees. Impacts would be less than significant.

b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. Operation of the proposed Project would result in increases in potable water demand. City residents and businesses are served by the EMWD. Based on the PVCCSP EIR water demand assumption of 0.75 acre feet per year per acre of commercial and industrial development, the proposed Project's estimated water demand is approximately 15.21 acre feet per year, which is within the anticipated water demand increase for EMWD. According to the 2020 Urban Water Management Plan for EMWD, there is sufficient supply to accommodate demand under normal and single- and multiple-dry year conditions utilizing imported water. Local supplies would supplement imported supplies and provide additional supply reliability. Local supplies include groundwater pumped from the San Jacinto groundwater Basin, desalinated groundwater, and recycled water. Therefore, the EMWD would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

c) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Wastewater in the City is treated by the EMWD at the Perris Valley Regional Water Reclamation Facility, which has a current treatment capacity of 6.5 million gallons per day (EMWD 2021). According to the PVCCSP EIR wastewater generation assumption of 1,700 gallons per day per acre of commercial development, the proposed Project's total estimated water consumption is approximately 34,476 gallons per day, which would be the maximum potential wastewater generated at the site. This volume is within the Perris Valley Regional Water Reclamation Facility's remaining

treatment capacity of 6.5 million gallons per day. This Project would not inhibit the ability of the Perris Valley Regional Water Reclamation Facility to operate within its established wastewater treatment requirements. Therefore, the proposed Project would have a less than significant impact related to wastewater treatment.

d) Would the Project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Significant impacts could occur if the proposed Project would exceed the existing permitted landfill capacity or if it would violate federal, state, and local statutes and regulations. Overall, the amount of solid waste produced as a result of this Project is negligible compared to the capacity available at the two primary landfills, El Sobrante Landfill and the Badlands Landfill, which have a combined remaining capacity of 151,777,170 tons (California Department of Resources Recycling and Recovery 2024). Compliance with Riverside County waste reduction programs and policies would also reduce the volume of solid waste entering landfills. Individual development projects within Riverside County would be required to comply with applicable state and local regulations, thus reducing the amount of landfill waste by at least 50 percent. Therefore, because there would be adequate landfill capacity in the region to accommodate Project-generated waste, and the proposed Project is not expected to generate a substantial quantity of solid waste, the impact would be less than significant.

e) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Federal, state, and local statutes and regulations regarding solid waste generation, transport, and disposal are intended to decrease solid waste generation through mandatory reductions in solid waste quantities (e.g., through recycling and composting of green waste) and the safe and efficient transport of solid waste. The proposed Project would comply with all regulatory requirements regarding solid waste. Impacts would be less than significant.

7.1.18 Wildfire

a) Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. According to Figure S-05, Wildfire Hazards, of the City General Plan Safety Element, the Project site is located within a Local Responsibility Area and is not located in or near an area identified as a VHFHSZ (City 2021). The Project site is not within a State Responsibility Area. Therefore, the Project

would have no impacts related to wildfires or the associated issues identified in thresholds a through d, above. No impacts would occur.

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8.0 LIST OF PREPARERS

This document has been completed by the City of Perris, as CEQA Lead Agency for the proposed Project, with support from the following organizations and professional staff:

8.1 Lead Agency

City of Perris Planning Division

Kenneth Phung, Director of Development Services
Patricia Brenes, Planning Manager
Mathew Evans, Project Planner

8.2 Environmental Impact Report

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Linda Garcia, Document Processor

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Appendix A

Notice of Preparation, Initial Study, and Notice of Preparation Responses

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND NOTICE OF A PUBLIC SCOPING MEETING
PERRIS GATEWAY PROJECT

Date: **August 2, 2024**

To: State Clearinghouse, Property Owners, Responsible and Trustee Agencies, and Interested Parties

From: City of Perris Development Services Department, Planning Division
101 North D Street
Perris, CA 92570

Subject: **Notice of Preparation and Public Scoping Meeting Notice for the preparation of a Draft Environmental Impact Report for the Perris Gateway Project** – Specific Plan Amendment (SPA) 22-05280; Development Plan Reviews (DPR's) 22-00028 and 23-00021; Conditional Use Permits (CUPs) 22-05295, 24-05141 and 24-05142; and Tenative Parcel Maps (TPMs) 22-05279 (38567) and 24-05150 (38985)

Scoping Meeting: **August 7, 2024 at 6:00 p.m.**
Perris City Council Chambers
101 North D Street
Perris, CA 92570

Notice of Preparation Comment Period: **August 2, 2024 through September 3, 2024**

Project Title: Perris Gateway Project

Project Applicant: **Optimus Building Corporation**
445 S. D Street
Perris, CA 92570

Notice of Preparation of a Draft Environmental Impact Report

The City of Perris (City) will be the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and will be responsible for the preparation of a Draft Environmental Impact Report (EIR) for the proposed Perris Gateway Project (Project). An Initial Study has been prepared and the City has determined that an EIR is required for the Project based on its potential to cause significant environmental effects (State CEQA Guidelines Sections 15060 and 15081). The City requests input from you or your agency or organization as to the scope and content of the environmental information that is relevant to your agency or organization's statutory responsibilities or interests in connection with the proposed Project.

This Notice of Preparation identifies the Project applicant, contains a description of the proposed Project including Project setting and location, and identifies the potential environmental effects of the proposed Project. A project location map is included in this Notice of Preparation. Additional information regarding the potential environmental effects of the Project is available in the Initial Study prepared for the proposed Project.

Due to time limits mandated by State law, your response must be received at the earliest possible date, **but not later than 30 days** after receipt of this Notice of Preparation. The public comment period for this Notice of Preparation begins on **August 2, 2024** and is set to close at 5:00 p.m. on **September 3, 2024**.

Please send written comments to Mathew Evans, Contract Principal Planner, at the City of Perris Development Services Department address shown above or via email to mevans@cityofperris.org. Please include the name and contact person of the commenting individual, agency, or organization

Project Information

I. PROJECT SITE LOCATION AND SETTING

The Project site is located in the City of Perris (City), in Riverside County, California, northwest of the intersection of Ramona Expressway and Webster Avenue (see Figure 1, *Aerial Photograph,* attached at the end of this Notice of Preparation). The Project site includes approximately 20 acres of undeveloped land (Assessor's Parcel Numbers 314-170-020, 314-170-023, and 314-180-024) and is generally bounded by an existing warehouse on the north, Ramona Expressway on the south, the on ramp to Interstate 215 on the west, and Webster Avenue on the east. The Project site is within the boundaries of the Perris Valley Commerce Center Specific Plan (PVCCSP) planning area.

The Project site can generally be characterized as disturbed vacant land that was previously used for agricultural purposes. The Project site is generally flat with an elevation between 1,480 and 1,500 feet above mean sea level. The existing General Plan land use designation and zoning for the Project site is PVCC SP - Perris Valley Commerce Center Specific Plan and the Perris Valley Commerce Center Specific Plan (PVCCSP) land use designation for the Project site is Commercial. Land uses surrounding the Project site include a mix of commercial, light industrial, and residential land uses in varying states of development. The PVCCSP designates the areas east and south of the Project site as Commercial, the areas to the north and southeast as Light Industrial, a small parcel at the northernmost Project site boundary as Business Professional Office, and the parcels northeast as Residential.

The Project site is located approximately one mile south of March Air Reserve Base/Inland Port Airport and is located within Airport Compatibility Zone C1 (Primary Approach/Departure Zone) for the airport. Airport Compatibility Zone C1 is a primary approach/departure zone with limited residential land uses and prohibits noise sensitive land uses and other uses which would cause hazards to flight. The Project site is located within the Mead Valley Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) but is not located within any MSHCP Criteria Cell or designated conservation area.

II. PROJECT BACKGROUND

On January 10, 2012, the City of Perris City Council adopted the PVCCSP, which was prepared pursuant to the authority granted to the City by California Government Code, Title 7, Division 1, Chapter 3, Article 8, Sections 65450 to 65457. On the same date, the City also adopted Ordinance No. 1284, adopting Specific Plan Zoning for properties within the Perris Valley Commerce Center planning area. The PVCCSP land uses allow for the development of approximately 3,500 acres which consist of industrial, commercial, and office uses, as well as public facilities. The PVCCSP has been subsequently amended, with Amendment No. 14 occurring in March 2023. In conjunction with its approval of the PVCCSP, the City complied with CEQA by preparing and certifying the Perris Valley Commerce Center Specific Plan Final Environmental Impact Report (PVCCSP EIR) (State Clearinghouse No. 2009081086).

III. PROJECT DESCRIPTION

The proposed Project involves City approval of a Specific Plan Amendment, Development Plan, Conditional Use Permits, and Tentative Parcel Maps to allow the construction and operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash. Figure 2, *Site Plan*, presents the conceptual site plan for the proposed Project. The Project is anticipated to be constructed in one phase over approximately 19 months. A more detailed description of the Project components is provided in Section 1.5 of the Initial Study.

Specific Plan Amendment. The proposed amendment to the PVCCSP would add self-storage facilities to the list of conditionally permitted uses within the Commercial land use designation provided in Table 2.0-2 of the PVCCSP.

Development Plan. In total, the Project proposes the development of 126,342 square feet of building area across the proposed land uses. Specifically, the Project would include 80,478 square feet of self-storage use across 22 buildings, two 6,000-square-foot sit-down restaurants, six drive-through fast-food restaurants comprised of 18,400 square feet of building area, 32 vehicle fueling positions across two gas stations including 10,039 square feet of convenience store uses, and a 5,425-square-foot automated car wash building. The proposed buildings would be a maximum of 45 feet in height above the exterior finished grade.

Vehicular access to the Project site would be provided via four driveways on Ramona Expressway and two driveways on Webster Avenue. Two of the driveways on Ramona Expressway and one of the driveways on Webster Avenue would be right-in, right-out only and the remaining intersections would be full access driveways. The proposed Project would include roadway improvements for Ramona Expressway and Webster Avenue, including a curb cut on Ramona Expressway for a future bus stop planned by the Riverside Transit Agency, construction of Ramona Expressway at its ultimate half-section pavement width as an Expressway (184-foot right-of-way) from Nevada Avenue to Webster Avenue, and other minor improvements to accommodate Project driveways. Parking would be provided by 486 automobile parking stalls on-site.

The proposed Project includes landscape coverage of approximately 10 percent of the eastern-most parcel on the Project site and approximately 23 percent of the two western parcels of the Project site. New sources of light would primarily include parking lot lighting, outdoor security lighting for the proposed buildings, and lighted signage. A six-foot-high masonry wall would be constructed along the western edge of the Project site adjacent to I-215 and the existing screen wall along the northern edge of

the Project site that provides separation of the Project site and adjacent warehouse uses for privacy, noise control, and security would be maintained in its existing condition.

The Project would include the installation of on-site storm drain, water quality, water, sewer, electric, natural gas, and telecommunications infrastructure systems to serve the proposed Project. The on-site utility infrastructure would connect to existing utilities in the vicinity of the Project site or new utility lines that would be installed within the public right-of-way adjacent to the Project site.

Conditional Use Permits (CUPs). The Project includes self-storage, drive-through restaurant, and gas station uses, which require the issuance of Conditional Use Permits to allow for these uses on a site designated as Commercial under the PVCCSP.

Tentative Parcel Map (TPM). The Project proposes TPM No. 38576 to re-subdivide the two western parcels of the Project site into four parcels and TPM No. 38985 to re-subdivide the eastern parcel of the Project site into four parcels.

IV. REQUIRED ENTITLEMENTS/APPROVALS

Pursuant to the provisions of CEQA and the Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines), the City of Perris, as the Lead Agency, is charged with the responsibility of deciding whether to approve the proposed Project. As identified above, the following permits and discretionary actions are required by the City of Perris to implement the proposed Project:

- **Development Plan Review** for the site plans and building elevations;
- **Certification of an EIR** with the determination that the EIR has been prepared in compliance with the requirements of CEQA;
- **Tentative Parcel Maps** to re-subdivide the existing three-parcel Project site into eight new parcels;
- **Specific Plan Amendment** to amend the PVCCSP to conditionally allow self-storage uses within the Commercial land use designation; and
- **Conditional Use Permits** to allow for self-storage uses, drive-through restaurants, and gas station uses with alcohol sales for off-site consumption on the site.

Other non-discretionary actions anticipated to be taken by the City at the staff level for the proposed Project include:

- Review and approval of all off-site infrastructure plans, including street and utility improvements pursuant to the conditions of approval;
- Review of all plans, including grading and on-site utilities; and
- Approval of a Preliminary Water Quality Management Plan to mitigate post-construction runoff flows.

Approvals and permits that may be required by other agencies include:

- A **National Pollutant Discharge Elimination System** (NPDES) permit from the Regional Water Quality Control Board (RWQCB) to ensure that construction site drainage velocities are equal to or less than the pre-construction conditions and downstream water quality is not worsened;

- A determination by the **Riverside County Airport Land Use Commission** (ALUC) of consistency with the March ARB/IPA Airport Land Use Compatibility Plan (ALUCP);

- **South Coast Air Quality Management District** permit to construct and operate stationary sources of air contaminants;

- Approval of Water Supply Assessment and water and sewer improvement plans by the **Eastern Municipal Water District**; and

- Permits or associated approval by other utility agencies as necessary, for installation of new utility infrastructure or connections to existing facilities.

V. PROBABLE ENVIRONMENTAL EFFECTS OF THE PROJECT

The PVCCSP EIR is a program EIR, and project-specific evaluations in later-tier environmental documents for individual development projects within the PVCCP planning area were anticipated. As stated in Section 15168(d)(3) of the State CEQA Guidelines, "The program EIR can focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before." As such, the environmental analysis for the Project will be based on, or tiered from, the analysis presented in the PVCCSP EIR, when applicable.

The PVCCSP EIR analyzes the direct and indirect impacts resulting from implementation of the allowed development under the PVCCSP. Measures to mitigate, to the extent feasible, the significant adverse project and cumulative impacts resulting from that development are identified in the PVCCSP EIR. In conjunction with certification of the PVCCSP EIR, the City adopted a Mitigation Monitoring and Reporting Program (MMRP). Additionally, the PVCCSP includes Standards and Guidelines to be applied to future development projects in the Specific Plan area. The City requires that future development projects in the Specific Plan area comply with the required PVCCSP Standards and Guidelines and PVCCSP EIR mitigation measures as outlined in the MMRP, and that these requirements are implemented in a timely manner.

The Draft EIR for the proposed Project will contain a detailed Project Description, a description of the existing environmental setting of the Project Site and surrounding area, analysis of Project-specific environmental impacts, analysis of cumulative impacts, identification of additional project-specific mitigation measures required to reduce potentially significant impacts, and an analysis of alternatives to the Project that could reduce one or more of the potentially significant impacts of the Project.

The City has prepared an Initial Study and determined that an EIR is required for the proposed Project based on its potential to cause significant environmental effects. The Initial Study found that the following environmental topics would result in less than significant environmental impacts; and therefore, will not be further analyzed in the Draft EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

The Initial Study prepared for the proposed Project also identified environmental topics for which the Project has potential to cause significant environmental effects, but those effects would be mitigated below a level of significance with incorporation of mitigation measures. The following environmental topics would result in less than significant environmental impacts with implementation of the identified mitigation measures; and therefore, will not be further analyzed in the Draft EIR:

- Biological Resources
- Cultural Resources
- Geology and Soils
- Tribal Cultural Resources

The analysis to be provided in the forthcoming Draft EIR, and its supporting technical studies, will address potentially significant impacts and identify mitigation measures as necessary for the following environmental topics:

- Air Quality
- Greenhouse Gas Emissions

VI. PUBLIC MEETING

As identified above, the City of Perris will conduct a Draft EIR scoping meeting with the City of Perris Planning Commission on:

August 7, 2024 at 6:00 p.m.
Perris City Council Chambers
101 N. D Street
Perris, CA 92570

At the meeting, the City will provide background information on EIRs, provide a brief overview of the Project, and will solicit public input on environmental issues to be addressed in the Draft EIR and on items of public concern. Issues identified during the scoping meeting will be addressed in the Draft EIR as appropriate.

VII. RESPONSE TO THIS NOTICE OF PREPARATION

This Notice of Preparation, as well as the Initial Study for the proposed Project, is available for review on the City's website at: https://www.cityofperris.org/departments/development-services/planning/environmental-documents-for-public-review.

Copies of the Notice of Preparation and Initial Study are also available for review at the Downtown Library and at the City of Perris Development Services Department located at 135 N. D Street, Perris, CA 92570.

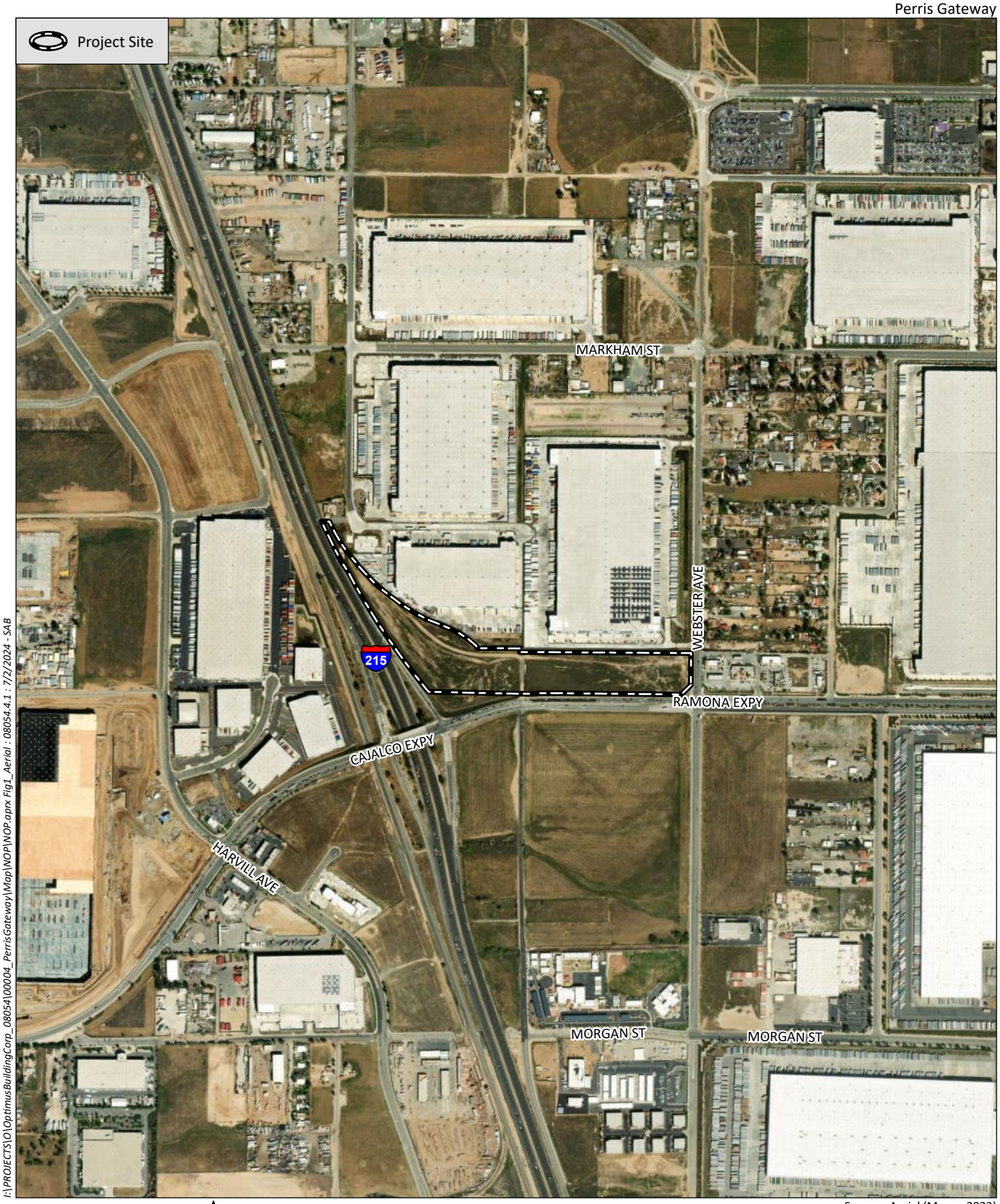
Please provide written comments to the City of Perris no later than 30 days from receipt of this Notice of Preparation, by September 3, 2024. According to State CEQA Guidelines Section 15082(b), your comments should address the scope and content of environmental information related to your agency's area of statutory responsibility. More specifically, your response should identify the significant environmental issues and reasonable alternatives and mitigation measures that your agency will need to have explored in the Draft EIR as well as whether your agency will be a responsible or trustee agency, as defined in State CEQA Guidelines Sections 15381 and 15386, respectively. Please return all comments to the following address or email:

Mathew Evans, Project Planner
City of Perris Development Services Department, Planning Division
135 N. D Street
Perris, CA 92570
Email: **mevans@cityofperris.org**

Signature: Mathew Evans

Mathew Evans, Project Planner

The City of Perris appreciates your attention to this Notice of Preparation.



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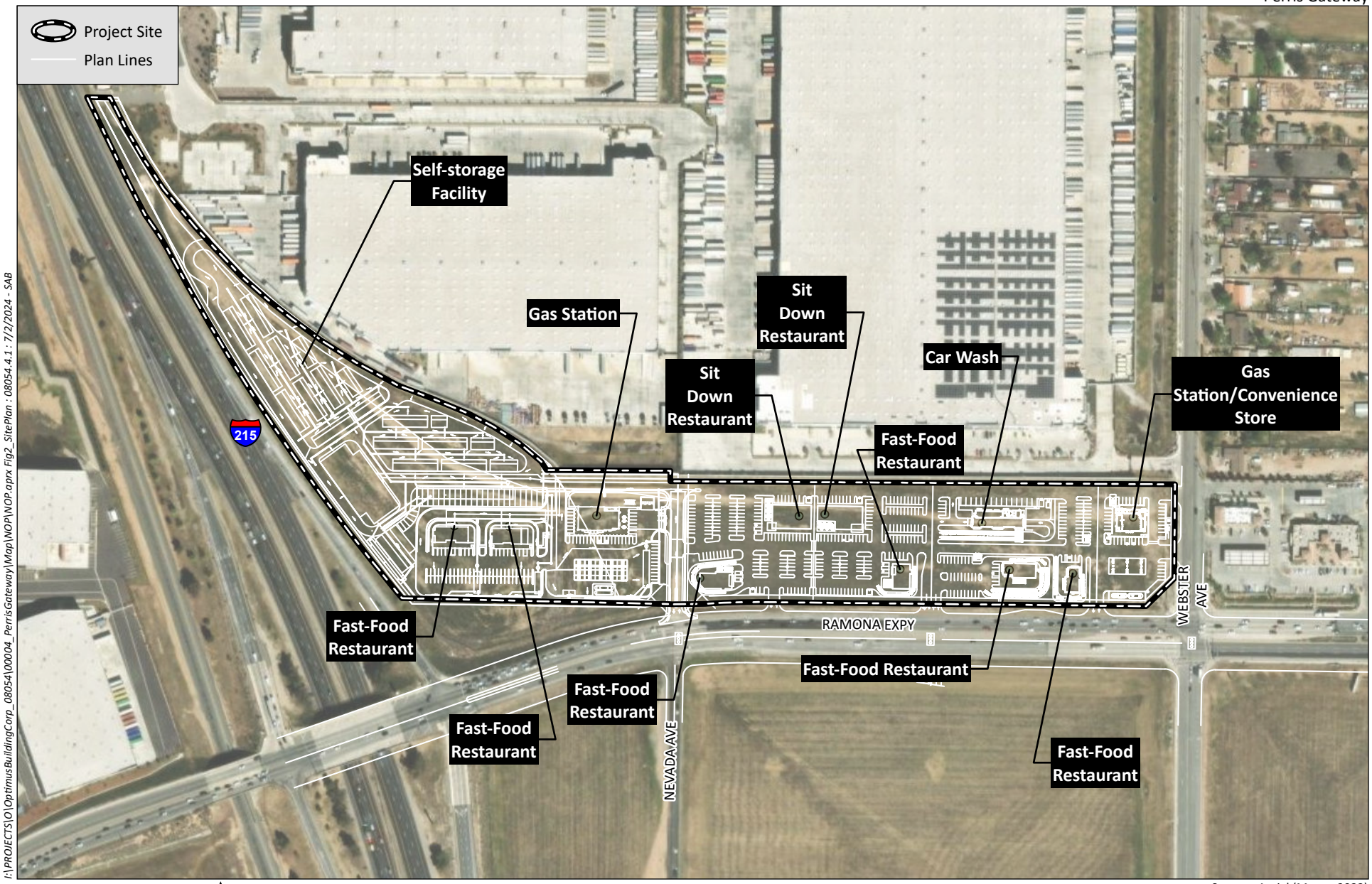
Source: Aerial (Maxar, 2022)

HELIX Environmental Planning

Aerial Photograph

Figure 1



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Source: Aerial (Maxar, 2022)

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HELIX Environmental Planning

Site Plan

Figure 2

Perris Gateway Project

SPA 22-05280; TPM 22-05279 (38567);
TPM 24-05150 (38985); DPR 22-00028;
DPR 23-00021; CUP 22-05295;
CUP 24-05141; CUP 24-05142

Initial Study

August 2024

Submitted to:

City of Perris
135 North D Street
Perris, CA 92570

Prepared for:

Optimus Building Corporation
445 South D Street
Perris, CA 92570

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act of 1990
AICUZ	Air Installations Compatible Use Zones
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AOZ	Airport Overlay Zone
APZ	Accident Potential Zone
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
BMP	Best Management Practice
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Perris
CUP	Conditional Use Permit
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibel
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HVLP	high volume low pressure
I-	Interstate
IPA	Inland Port Airport
kWh	kilowatt-hour
L_{EQ}	hourly noise level
L_{MAX}	maximum noise level

Acronyms and Abbreviations (cont.)

MARB	March Air Reserve Base
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MRZ	Mineral Resource Zone
MSHCP	Multiple Species Habitat Conservation Plan
MS4	Municipal Separate Storm Sewer System
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
NPRBBD	North Perris Road and Bridge Benefit District
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PPV	peak particle velocity
PVCC	Perris Valley Commerce Center
PVCCSP	Perris Valley Commerce Center Specific Plan
RTA	Riverside Transit Agency
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
USEPA	U.S. Environmental Protection Agency
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
WQMP	Water Quality Management Plan

1.0 Introduction

This section includes a description of the proposed Perris Gateway Project (Project) pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) Sections 15124 and 15125. Specifically, this section includes a description of the Project location, background, and environmental setting; a statement of objectives sought for the proposed Project; a description of the Project components; and a summary of related local and state agency approvals required to implement the Project. The Project description is used as the basis for analyzing the Project's impacts on the existing physical environment throughout this Initial Study.

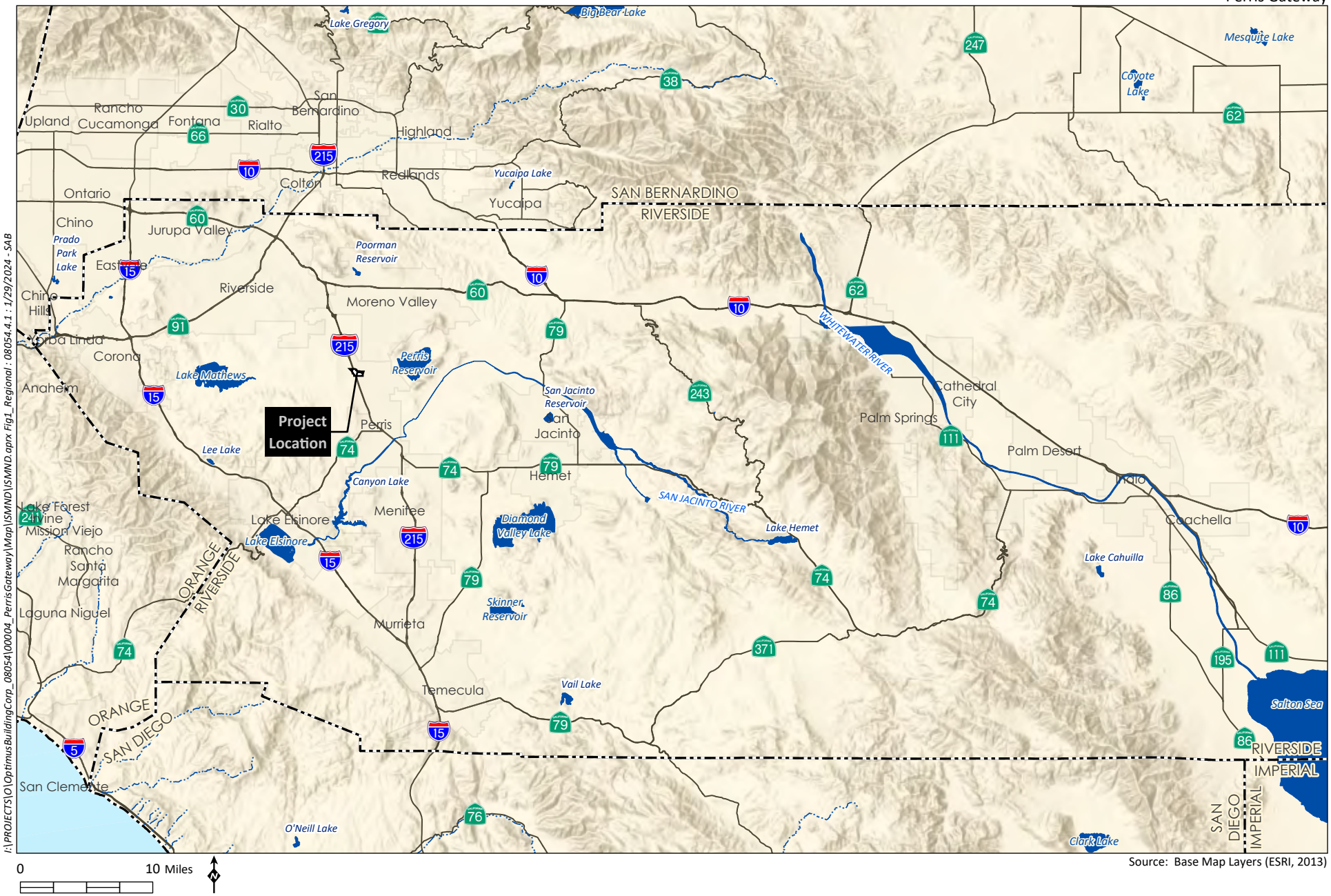
1.1 Project Location

The Project site (Assessor's Parcel Numbers 314-170-020, 314-170-023, and 314-180-024) is located within the western portion of the Perris Valley Commerce Center (PVCC) planning area (described further below) within the City of Perris (City) and includes approximately 20 acres (20.28 acres). It is located adjacent to Interstate (I-) 215, approximately 6.5 miles south of State Route (SR) 60, and approximately 1 mile south of March Air Reserve Base/Inland Port Airport (MARB/IPA). Figure 1, *Regional Location*, depicts the Project site in relation to the region. Figure 2, *Aerial Photograph*, depicts the existing developed and undeveloped conditions at and surrounding the Project site. As shown, the Project site is located north of Ramona Expressway, west of Webster Avenue, and east of I-215.

1.2 Project Background

On January 10, 2012, the City of Perris City Council adopted the Perris Valley Commerce Center Specific Plan (PVCCSP), which was prepared pursuant to the authority granted to the City of Perris by California Government Code, Title 7, Division 1, Chapter 3, Article 8, Sections 65450 to 65457. On the same date, the City also adopted Ordinance No. 1284, adopting a Specific Plan Zoning for properties within the PVCC. The PVCCSP allows for the development of approximately 3,500 acres of industrial, commercial, and office uses, as well as public facilities within the PVCC. In conjunction with its approval of the PVCCSP, the City complied with the California Environmental Quality Act (CEQA) by preparing and certifying the PVCCSP Final Environmental Impact Report (PVCCSP EIR; State Clearinghouse No. 2009081086; Albert A. Webb Associates 2011), which is incorporated by reference in this Initial Study and is available for public review at the City of Perris Planning Division, 135 North D Street, Perris, California 92570, and online at https://www.cityofperris.org/departments/development-services/specific-plans.

The PVCCSP EIR is a program EIR, and project-specific evaluations in later-tier environmental documents for individual development projects within the PVCCSP planning area were anticipated. The PVCCSP EIR analyzes the direct and indirect impacts resulting from implementation of the allowed development under the PVCCSP. Measures to mitigate, to the extent feasible, the significant adverse project and cumulative impacts resulting from that development are identified in the PVCCSP EIR. In conjunction with certification of the PVCCSP EIR, the City also adopted a Mitigation Monitoring and Reporting Program. Additionally, the PVCCSP includes Standards and Guidelines to be applied to future development projects within the Specific Plan area. The City of Perris requires that future development projects within the Specific Plan area comply with the required PVCCSP Standards and Guidelines and applicable PVCCSP EIR mitigation measures as outlined in the Mitigation Monitoring and Reporting Program, and that these requirements are to be implemented in a timely manner.



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0 10 Miles

Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1

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0 600 Feet

Source: Aerial (Maxar, 2022)

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Aerial Photograph

Figure 2

Subsequently, an EIR was prepared for the Optimus Logistics Center and certified by the City of Perris City Council on January 12, 2016. The Project site was included in the study area of the Optimus Logistics Center EIR; however, no specific uses were proposed on the Project site. Rather, speculative shopping center uses including 220,520 square feet of development were analyzed as a potential use for two of the Project site parcels for the purpose of the Optimus Logistics Center EIR. No development was proposed or analyzed on the third, westernmost parcel of the Project site since this area was reserved for a future Ramona Expressway on-ramp alignment for Alternative 9 of the Mid-County Parkway project.

1.3 Environmental Setting

The PVCCSP EIR provides a description of the environmental and regulatory setting for the entire PVCC planning area, including the Project site. Except for the termination of agricultural activities and the construction of development anticipated within the PVCC planning area, the physical setting description for the Project site and adjacent areas has not notably changed since the PVCCSP EIR was certified in 2012. Similarly, the Project setting described in the Optimus Logistics Center EIR for the Project site remains consistent with current conditions, as the Project site has not been developed and industrial uses approved north of the Project site were developed as described in the Optimus Logistics Center EIR.

Additional environmental setting and existing conditions descriptions are provided for the environmental topics analyzed in each section of this Initial Study. Additionally, updates to applicable local and regional regulatory programs have occurred since the PVCCSP EIR and Optimus Logistics Center EIR were certified and new regulatory programs have been adopted; these updated regulations are discussed for each topical issue, as appropriate.

The City of Perris is within the Perris Block geologic unit, which lies within the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province is characterized by a series of northwesterly trending mountain ranges that extend from the coast of California eastward into the California desert and south to the tip of Baja California, Mexico. The Perris Block is bound on the northeast by the San Jacinto Fault, on the north by the Cucamonga Fault and the San Gabriel Mountains, and on the southwest by the Elsinore Fault and the Santa Ana Mountains. The City of Moreno Valley borders the City to the north and the City of Menifee borders the City to the south. Unincorporated areas of Riverside County border the City to the east and west.

The Project site can generally be characterized as disturbed vacant land that was previously used for agricultural purposes. The Project site is generally flat with an elevation between 1,480 and 1,500 feet above mean sea level. Stormwater runoff generally flows from northwest to southeast within the western two parcels and southwest to northeast on the eastern parcel. Runoff outfalls to a catch basin at the northeast corner of the Project site and flows into Line E of the Perris Valley Storm Drain System, which is owned and maintained by the Riverside County Flood Control and Water Conservation District and runs in an east-west direction along Ramona Expressway.

The land uses surrounding the Project site include a mix of undeveloped and developed areas. Surrounding land uses include the Optimus Logistics Center to the north, residential land uses to the northeast, commercial development to the east, currently undeveloped areas to the south, and I-215 to the west. The vacant parcels south of the Project site along Ramona Expressway are designated in the PVCCSP for commercial land uses, as described below.

The existing General Plan land use designation and zoning for the Project site is PVCC SP - Perris Valley Commerce Center Specific Plan. As shown on Figure 3, *PVCCSP Land Use Designations*, the PVCCSP designates the Project site as Commercial. Commercial land use designations are also identified immediately to the east and south of the Project site. Light Industrial designations occur along the northern property boundary and further to the north, as well as to the southeast. The small parcel located at the northernmost Project site boundary currently contains a distribution center and is designated as Business Professional Office in the PVCCSP, and the parcels northeast of the Project site are designated as Residential in the PVCCSP.

The Project site is located approximately one mile south of MARB/IPA and is located within the MARB/IPA Airport Influence Area Boundary. The PVCCSP includes an Airport Overlay Zone (AOZ) which defines specific land uses corresponding generally with the boundaries and provisions of the 2014 MARB/IPA Airport Land Use Compatibility Plan (ALUCP) and airport influence area. The Project site is within Airport Compatibility Zone C1 (Primary Approach/Departure Zone). Development within airport compatibility zones is restricted by the basic compatibility criteria provided in Table MA-2 of the 2014 MARB/IPA ALUCP which is consistent with the safety and noise standards contained within the 2018 Air Installations Compatible Use Zones (AICUZ) Study. Airport Compatibility Zone C1 is a primary approach/departure zone with limited residential land uses and prohibits noise sensitive land uses and other uses which would cause hazards to flight.

The Project site is not within or adjacent to a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Area. It is not within an MSHCP Criteria Cell, Core, or Linkage Area. The Project site is also not in a survey area for mammals, amphibians, Criteria Area Plant Species Survey Area, or Narrow Endemic Plant Species Survey Area.

1.4 Project Objectives

The applicant's goals for the proposed Project are to provide for the development of local serving commercial uses in the northern portion of the City and to increase employment opportunities while providing development compatible with the MARB/IPA ALUCP. These goals align with various aspects of Connect SoCal – The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments (Connect SoCal 2020), primarily related to balancing job and housing opportunities in local areas to reduce long commutes from home to work. The Southern California Association of Governments (SCAG) identifies the Inland Empire as a housing-rich area and coastal communities as job-rich areas and is striving in its policies to achieve more local balances of jobs and housing.

Source: Aerial (Maxar, 2022)

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PVCCSP Land Use Designations

Figure 3

1.5 Project Components

The proposed Project involves City approval of a Specific Plan Amendment, Tentative Parcel Map, Development Plan Reviews, and Conditional Use Permits (CUPs), to allow the construction and operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash. The components of the Project are further described below.

Specific Plan Amendment

It is the intent of the PVCCSP to facilitate development of the area in an orderly and consistent fashion that is coordinated with the provision of necessary infrastructure and public improvements. Land use categories in the PVCCSP include Industrial, Business/Professional Office, Commercial, Residential, and Public. Zoning categories in the PVCCSP include General Industrial, Light Industrial, Business/ Professional Office, Commercial, Residential, Multi-Family Residential, and Public. The majority of the PVCC planning area is designated for Light Industrial and General Industrial development and identifies areas along Ramona Expressway at the east and west ends of the PVCC boundary, including the Project site, for Commercial development. The Land Use Plan section of the PVCCSP that would be amended by the proposed Specific Plan Amendment is described below. No other Specific Plan amendments are proposed.

Section 2.0 of the PVCCSP contains the Land Use Plan and defines land use categories and zones throughout the PVCC planning area and details permitted, conditionally permitted, accessory, and prohibited uses for each zone. The PVCCSP designates the Project site as a Commercial land use and zone, which is defined as a zoning designation that provides for retail, professional office, and service-oriented business activities which serve the entire City, as well as the surrounding neighborhoods. The proposed amendment to the PVCCSP would add self-storage facilities to the list of permitted uses within the Commercial land use designation provided in Table 2.0-2 of the PVCCSP. The environmental analysis contained in this Initial Study addresses the effects of the proposed self-storage facility within the Commercial land use area of the Project site and does not address impacts associated with speculative development of self-storage facilities on other sites with existing Commercial land use designations. There are no other known development applications proposing the construction of a self-storage facility within the PVCCSP Commercial land use designation and, as such, analysis related to potential future development of these facilities would be speculative.

Tentative Parcel Map

The Project applicant proposes a Tentative Parcel Map to re-subdivide the existing three-parcel Project site into eight parcels. As shown in Figure 4, *Tentative Parcel Map*, these parcels would range in size from 0.936 net acre to 6.847 acres. The subdivision of the site into these separate parcels would provide for the separation of proposed land uses and future ownership changes.

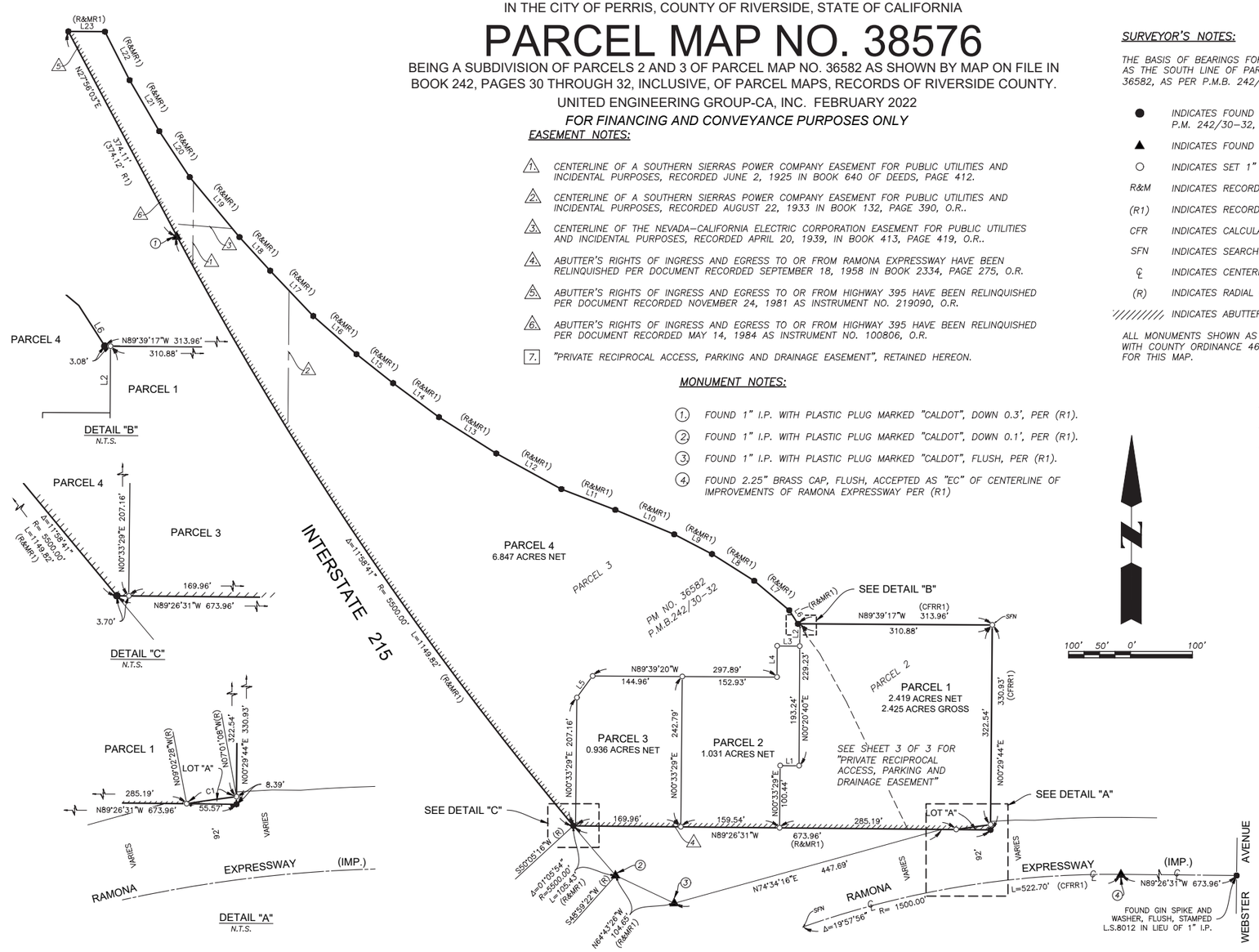
IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

PARCEL MAP NO. 38576

BEING A SUBDIVISION OF PARCELS 2 AND 3 OF PARCEL MAP NO. 36582 AS SHOWN BY MAP ON FILE IN BOOK 242, PAGES 30 THROUGH 32, INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY.

UNITED ENGINEERING GROUP-CA, INC. FEBRUARY 2022

FOR FINANCING AND CONVEYANCE PURPOSES ONLY



EASEMENT NOTES:

1. CENTERLINE OF A SOUTHERN SIERRAS POWER COMPANY EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JUNE 2, 1925 IN BOOK 640 OF DEEDS, PAGE 412.
2. CENTERLINE OF A SOUTHERN SIERRAS POWER COMPANY EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 22, 1933 IN BOOK 132, PAGE 390, O.R..
3. CENTERLINE OF THE NEVADA–CALIFORNIA ELECTRIC CORPORATION EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED APRIL 20, 1939, IN BOOK 413, PAGE 419, O.R..
4. ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM RAMONA EXPRESSWAY HAVE BEEN RELINQUISHED PER DOCUMENT RECORDED SEPTEMBER 18, 1958 IN BOOK 2334, PAGE 275, O.R.
5. ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM HIGHWAY 395 HAVE BEEN RELINQUISHED PER DOCUMENT RECORDED NOVEMBER 24, 1981 AS INSTRUMENT NO. 219090, O.R.
6. ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM HIGHWAY 395 HAVE BEEN RELINQUISHED PER DOCUMENT RECORDED MAY 14, 1984 AS INSTRUMENT NO. 100806, O.R.
7. "PRIVATE RECIPROCAL ACCESS, PARKING AND DRAINAGE EASEMENT", RETAINED HEREON.

MONUMENT NOTES:

1. FOUND 1" I.P. WITH PLASTIC PLUG MARKED "CALDOT", DOWN 0.3', PER (R1).
2. FOUND 1" I.P. WITH PLASTIC PLUG MARKED "CALDOT", DOWN 0.1', PER (R1).
3. FOUND 1" I.P. WITH PLASTIC PLUG MARKED "CALDOT", FLUSH, PER (R1).
4. FOUND 2.25" BRASS CAP, FLUSH, ACCEPTED AS "EC" OF CENTERLINE OF IMPROVEMENTS OF RAMONA EXPRESSWAY PER (R1)

SURVEYOR'S NOTES:

THE BASIS OF BEARINGS FOR THIS SURVEY IS N 89°26'31" W, SHOWN AS THE SOUTH LINE OF PARCELS 2 AND 3 ON PARCEL MAP NO. 36582, AS PER P.M.B. 242/30–32.

●	INDICATES FOUND 1" I.P. WITH NAIL & TAG, L.S. 8012 PER P.M. 242/30–32, UNLESS NOTED OTHERWISE.
▲	INDICATES FOUND MONUMENT AS NOTED.
○	INDICATES SET 1" I.P., TAGGED L.S. 6974
R&M	INDICATES RECORD & MEASURED
(R1)	INDICATES RECORD DATA PER P.M.242/30–32.
CFR	INDICATES CALCULATED FROM RECORD
SFN	INDICATES SEARCHED, FOUND NOTHING
℄	INDICATES CENTERLINE
(R)	INDICATES RADIAL BEARING
//////////	INDICATES ABUTTER'S RIGHTS RELINQUISHED

ALL MONUMENTS SHOWN AS "SET" SHALL BE SET IN ACCORDANCE WITH COUNTY ORDINANCE 461.10 AND THE MONUMENT AGREEMENT FOR THIS MAP.

CURVE TABLE

CURVE #	DELTA	RADIUS	LENGHT	TANGENT
C1	02°01'20"	1592.00'	56.19'	28.10'

LINE TABLE

LINE #	LENGTH	BEARING
L1	30.37'	N89°39'20"W
L2	35.99'	N00°20'40"E
L3	36.45'	N89°39'20"W
L4	50.29'	N00°20'40"E
L5	43.09'	N36°01'25"E
L6	26.01'	N32°38'51"W
L7	73.98'	N49°57'26"W
L8	80.70'	N57°37'43"W
L9	68.90'	N62°30'04"W
L10	102.87'	N67°26'31"W
L11	93.53'	N68°57'39"W
L12	119.79'	N61°15'53"W
L13	109.51'	N57°38'44"W
L14	92.36'	N53°28'24"W
L15	75.37'	N51°39'44"W
L16	93.15'	N48°36'22"W
L17	100.92'	N43°33'34"W
L18	73.44'	N42°24'15"W
L19	125.95'	N39°39'38"W
L20	88.95'	N33°36'49"W
L21	95.38'	N30°12'04"W
L22	87.81'	N26°52'30"W
L23	59.24'	N89°35'56"W

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Source: Optimus Building Corp, 2024

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Tentative Parcel Map – Western Site

Figure 4a

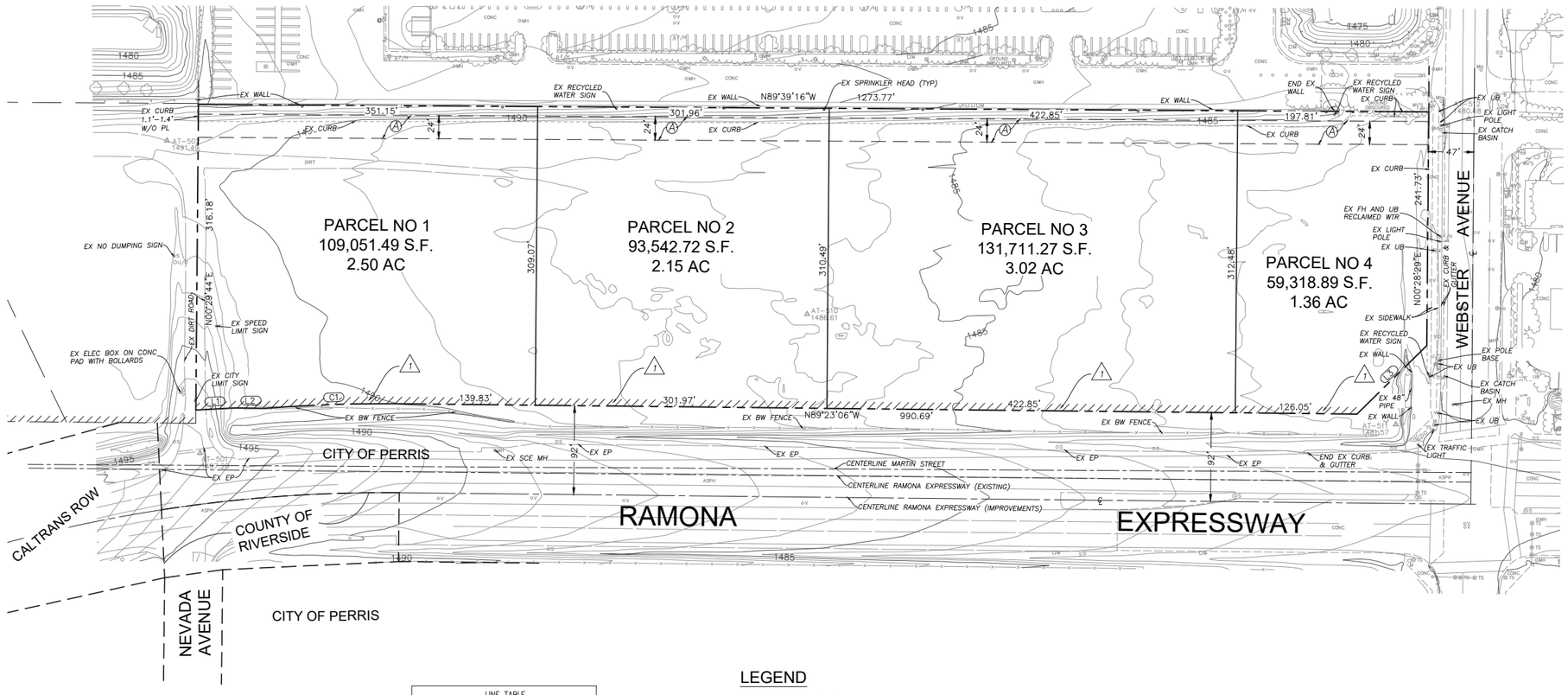
TENTATAVE PARCEL MAP NO. 38985

IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

UNITED ENGINEERING GROUP CA., INC APRIL 2024

FOR FINANCE AND CONVEYANCE PURPOSES ONLY

A FUTURE SUBDIVISION MAP, OR LAND USE ENTITLEMENT OR PERMIT IS NECESSSARY TO DEVELOP THIS PROPERTY. THIS MAP DOES NOT REMOVE ANY CONDITIONS OF APPROVAL FOR SEPARATE LAND USE ENTITLEMENTS OR TENTATIVE MAPS OR USE PERMITS APPROVED FOR THIS LAND.



LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.71'	N86°54'01"E
L2	31.91'	N89°26'31"W
L3	101.23'	N45°32'41"E

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C1	1592.00'	140.15'	5°02'38"

60' 30' 0' 60'

BENCHMARK:

NGS DATA POINT
DESIGNATION–432:PID–DX5439
3 ½" ALUMINUM DISC STAMPED "BM 432"
SW COR PERRIS BLVD AND RIDER ST, BASE OF STEEL SIGNAL LIGHT, 3.5' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEV = 1455.11 (NAVD88)

LEGEND

CL	CHAIN LINK
ROW	RIGHT–OF–WAY
PP	POWER POLE
BW	BARBED WIRE
EP	EDGE OF ASPHALT PAVEMENT
GW	GUY WIRE
UB	UTILITY BOX
MH	MANHOLE
V	VALVE
U/O	UNIDENTIFIED OBJECT
S	SIGN
M	METER
TS	TRAFFIC SIGNAL
CONC	CONCRETE
ASPH	ASPHALT
AB	ASPHALT BERM
F/H	FIRE HYDRANT
CF	CURB FACE
TSB	TRAFFIC SIGNAL BOX
TSP	TRAFFIC SIGNAL POLE
— 2334 —	INDICATES CONTOUR ELEVATION
— - - - —	PROJECT BOUNDARY
//////////	INDICATES ABUTTER'S RIGHTS RELINQUISHED

SURROUNDING LAND USE

NORTH:	PERRIS VALLEY COMMERCE CENTER SP (LIGHT INDUSTRIAL)
SOUTH:	PERRIS VALLEY COMMERCE CENTER SP (COMMERCIAL)
EAST:	PERRIS VALLEY COMMERCE CENTER SP (COMMERCIAL)
WEST:	PERRIS VALLEY COMMERCE CENTER SP (COMMERCIAL)

EXISTING & PROPOSED LAND USE:

PERRIS VALLEY COMMERCE CENTER SP

PARCEL #	EXIST LAND USE	PROPOSED LAND USE
1	COMMERCIAL	COMMERCIAL
2	COMMERCIAL	COMMERCIAL
3	COMMERCIAL	COMMERCIAL
4	COMMERCIAL	COMMERCIAL

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Source: United Engineering Group, 2024

Development Plan

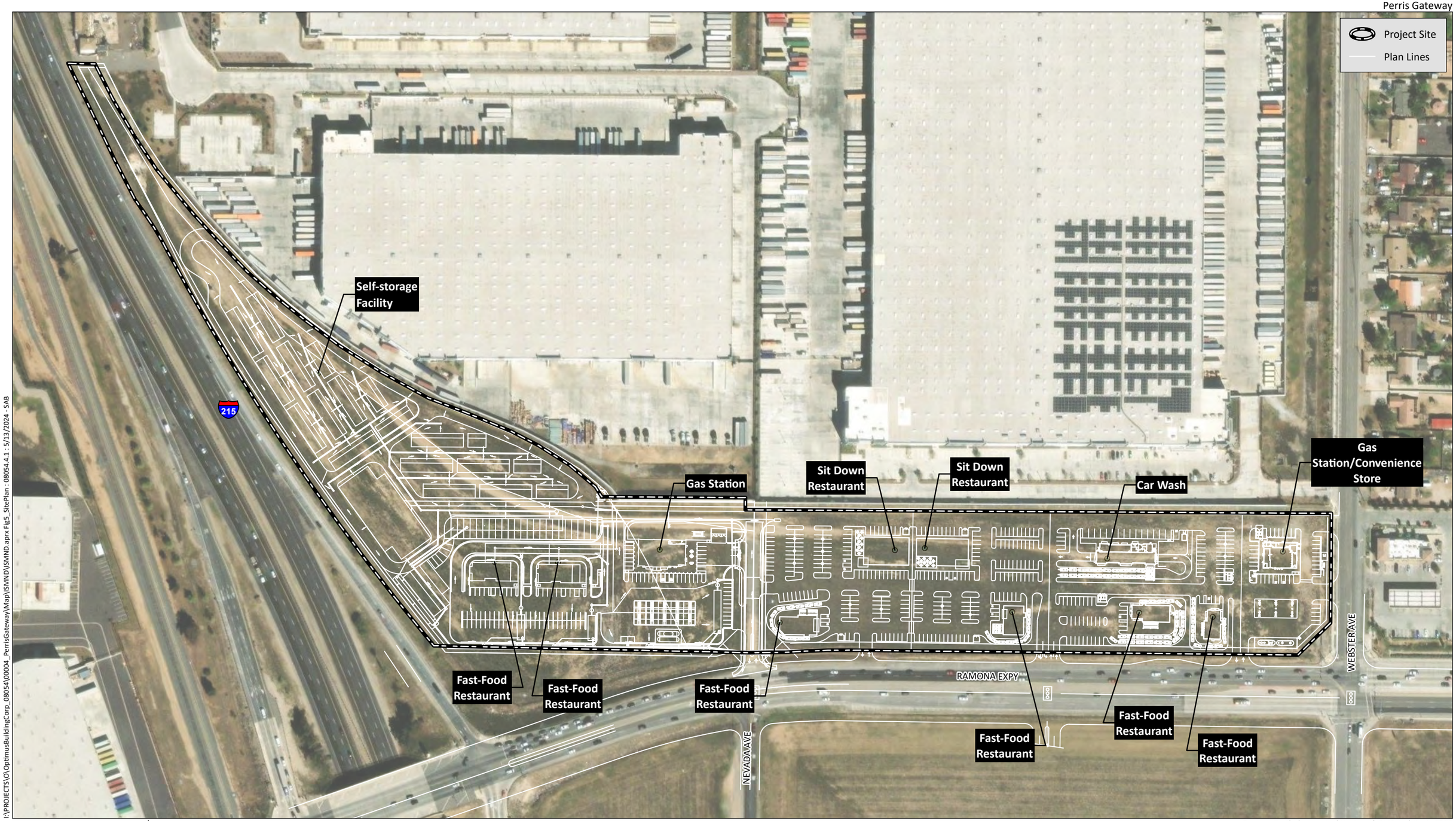
The proposed Project involves the development of a commercial center including a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash, along the northern side of Ramona Expressway. Figure 5, *Site Plan*, shows the proposed development. In total, the Project involves the development of 126,342 square feet of building area across these uses. Specifically, the Project would include 80,478 square feet of self-storage use across 22 buildings, two 6,000-square-foot sit-down restaurants, six drive-through fast-food restaurants comprised of 18,400-square-foot building area, 32 vehicle fueling positions across two gas stations including 10,039 square feet of convenience store uses, and a 5,425-square-foot automated car wash building.

The two western parcels are separately owned from the easternmost parcel and were submitted for separate Development Plan Review. The two western parcels are referred to as the “western site” and the eastern parcel encompasses the “eastern site.” These identifiers for the ownership differences within the Project site provide differentiation for the purposes of the Development Plan Review by the City. Unless otherwise specified, the descriptions and analysis in this Initial Study apply to the entirety of the three parcels referred to as the Project site. Elements of the Project specific to the Development Plan for the western site and eastern site are noted where necessary.

In general, the architectural style of the proposed structures would be contemporary. The buildings would be constructed of plaster walls with accents of sustainable and natural materials. The exterior color palette would be comprised of various neutral shades, including whites, tans, greys, blues, and blacks, with occasional accent tones. The proposed buildings would be a maximum of 45 feet in height above the exterior finished grade. The architectural elements and landscaping would avoid monotony and repetition in building elevations and would minimize glare. Rooftop equipment would be screened and not visible from the street. Figure 6, *Commercial Building Elevations*, provides representative elevations of the style of the proposed commercial buildings for the restaurant, convenience store, and car wash uses. Figure 7, *Self-Storage Building Elevations*, shows the proposed style of the self-storage buildings and Figure 8, *Freeway Line-of-Sight to Self-Storage*, shows the line-of-sight from I-215 to the self-storage facility.

A key objective of the PVCCSP is to promote sustainable development and to encourage the use of “green” technologies. In accordance with PVCCSP EIR mitigation measure MM Air 20, the Project would be constructed to implement, at a minimum, an increase in building energy efficiency 15 percent beyond California Title 24 Energy Efficiency Standards for Nonresidential Buildings and reduce water use by 25 percent.

Perris Gateway



0 200 Feet

Source: Bartholomew Architecture & SMS Architects 2024

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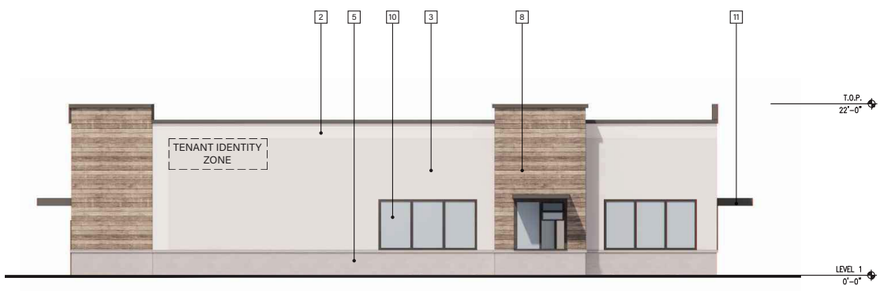
HELIX Environmental Planning

Site Plan

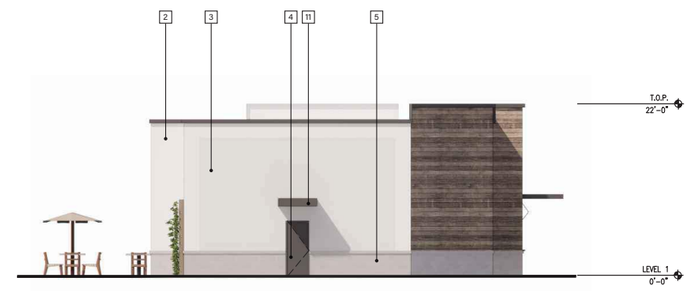
Figure 5

A - NORTH ELEVATION

B - EAST ELEVATION



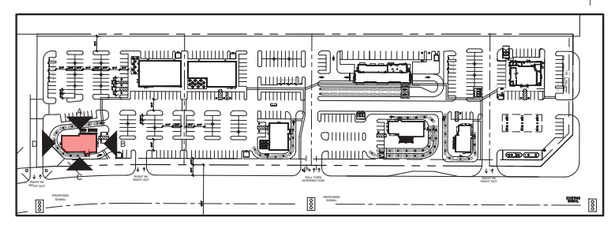
C - SOUTH ELEVATION



D - WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6187 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7674 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7674 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

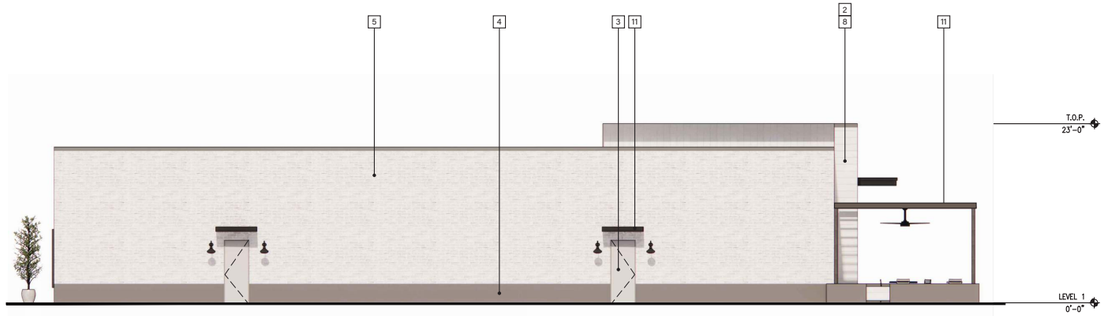
Source: SMS Architects, 2024

I:\PROJECTS\O\OptimusBuildingCorp_08054\00004_PerrisGateway\Map\SMND\Fig6a_Elevations.indd 08054.4.1 5/13/2024 - SAB

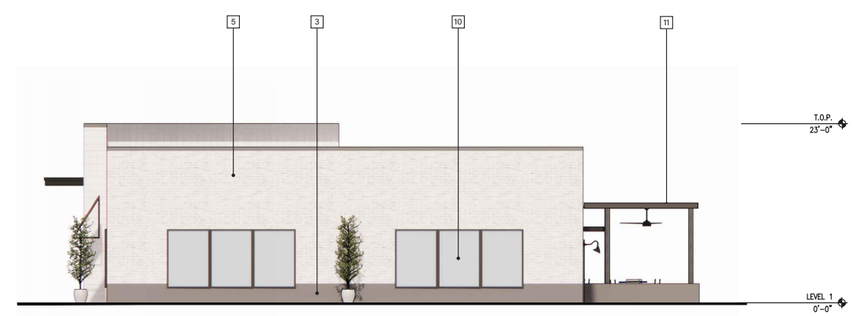
HELIX Environmental Planning

Commercial Building Elevations - Building 1

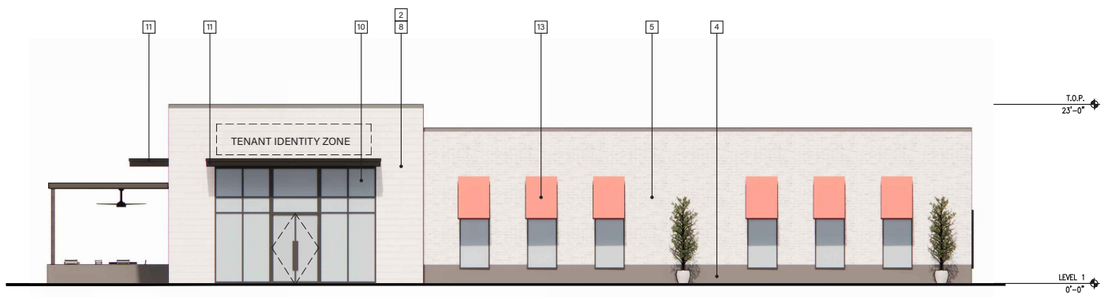
Figure 6a



A - NORTH ELEVATION



B - EAST ELEVATION

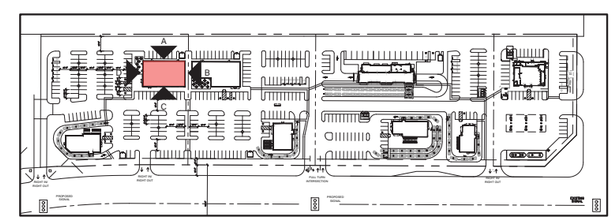


C - SOUTH ELEVATION

D - WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

Source: SMS Architects, 2024

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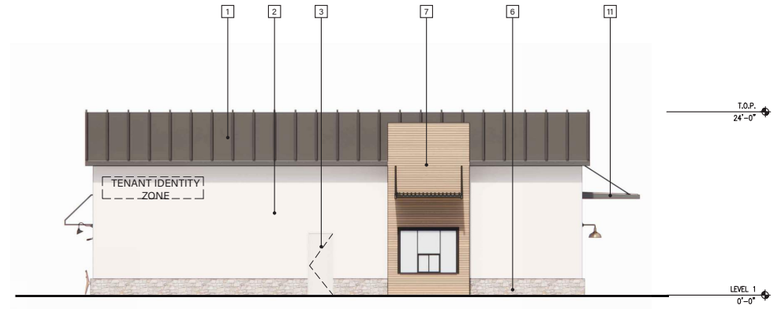
HELIX Environmental Planning

Commercial Building Elevations - Building 2

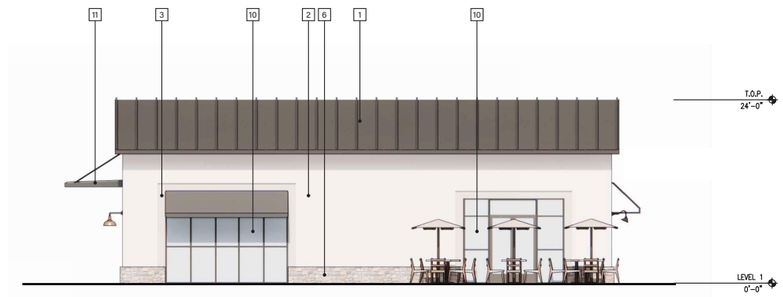
Figure 6b

A - NORTH ELEVATION



B - EAST ELEVATION

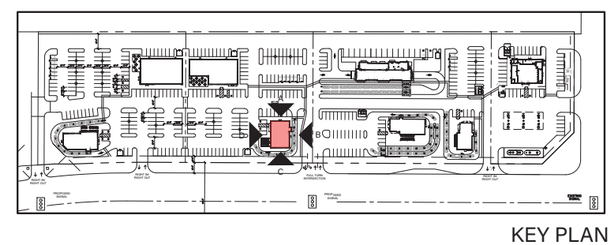
C - SOUTH ELEVATION



D - WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

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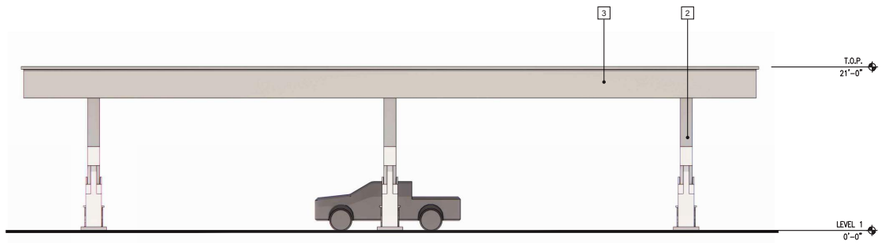
Source: SMS Architects, 2024

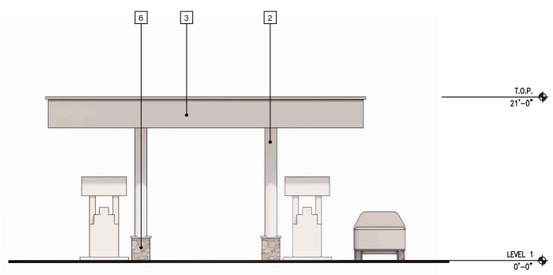
HELIX Environmental Planning

Commercial Building Elevations - Building 4

Figure 6c



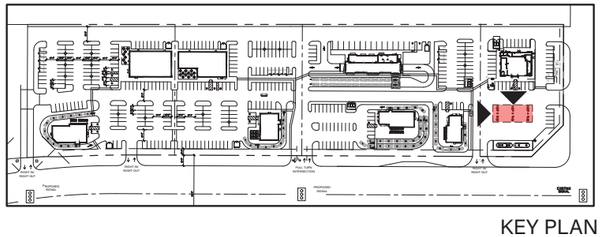
A - NORTH/SOUTH ELEVATION



B - EAST/WEST ELEVATION

COLORS AND MATERIALS

1	METAL ROOF	WESTERN STATES METAL CHARCOAL GRAY
2	PAINT	SHERWIN WILLIAMS SW 7006 EXTRA WHITE
3	PAINT	SHERWIN WILLIAMS SW6197 ALOOF GRAY
4	PAINT	SHERWIN WILLIAMS SW7974 PEPPERCORN
5	STONE VENEER	ELDORADO STONE LONGITUDE24- SILENT GREY
6	STONE VENEER	ELDORADO STONE RIVER ROCK-RIO GRANDE
7	WOOD	WOOD NATURAL STAIN - DARK
8	WOOD	WOOD NATURAL STAIN - LIGHT
9	ZINC	PURE FREEFORM CRYSTAL FACE ZINC #CA003
10	STOREFRONT	ANODIZED ALUMINUM DARK BRONZE
11	METAL AWNING	SHERWIN WILLIAMS SW7974 PEPPERCORN
12	FABRIC CANOPY	SUNBRELLA BLACK
13	FABRIC CANOPY	SUNBRELLA BURGUNDY



KEY PLAN

Source: SMS Architects, 2024

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HELIX Environmental Planning

Commercial Building Elevations - Gas Station

Figure 6d

North Elevation

West Elevation

South Elevation

East Elevation

Source: HPA Architecture, 2024

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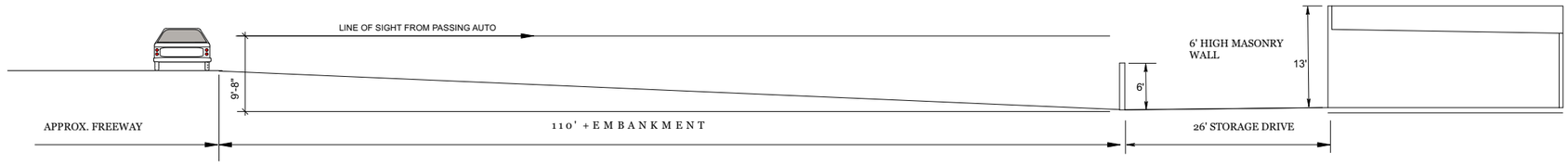
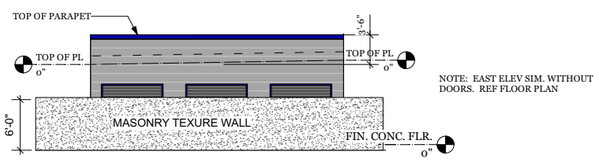
HELIX Environmental Planning

Self-Storage Building Elevations

Figure 7

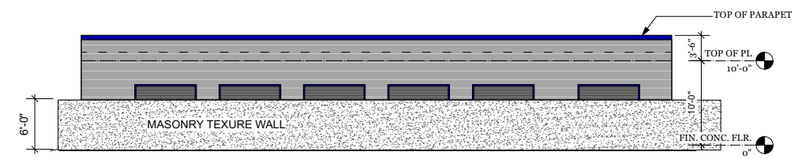


SECTION THRU FREEWAY - EMBANKMENT - SELF STORAGE FACADE
Scale: 1/8" = 1'-0"



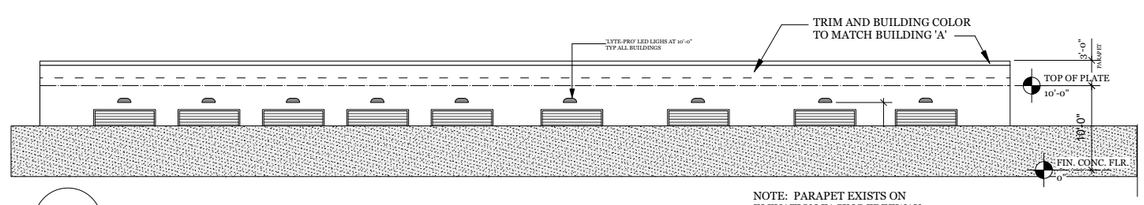
VIEW FROM FRWY 215-WEST VIEW FROM FWY

E-1 / A-10 WEST ELEVATION-BLDG D
Scale: 1/8" = 1'-0"



VIEW FROM FRWY 215-SOUTH VIEW FROM ENTRY RAMP

C-1 / A-10 SOUTH ELEVATION-BLDG D
Scale: 1/8" = 1'-0"



B-1 / A-9 SOUTH ELEV- BLDG C
Scale: 1/8" = 1'-0"

FREEWAY FACING BUILDING 'C' ELEVATION

NOTE: PARAPET EXISTS ON ELEVATION FACING FREEWAY

I:\PROJECTS\O\OptimusBuildingCorp_08054\00004_PerrisGateway\Map\SMND\Fig8_FreewayLineofSight.indd 08054.4.15/13/2024-SAB

Source: Bartholomew Architecture, 2024

HELIX Environmental Planning

Freeway Line-of-Sight to Self-Storage

Figure 8

Access, Circulation, and Parking

Vehicular Circulation

The Project has been designed to comply with applicable PVCCSP standards and guidelines to minimize vehicular conflict and to provide shared access. Vehicular access to the Project site would be provided via four driveways along Ramona Expressway and two driveways along Webster Avenue. Two of the driveways along Ramona Expressway and one of the driveways along Webster Avenue would be right-in, right-out only and the remaining intersections would be full access driveways. Intersection geometry is described in further detail for each driveway below. The proposed Project would include roadway improvements for Ramona Expressway and Webster Avenue. In addition, a curb cut between Project Driveways 3 and 4 would be provided to accommodate a future bus stop planned by the Riverside Transit Agency (RTA) in accordance with PVCCSP EIR mitigation measure MM Air 18. Off-site improvements that would be partially funded by the Project's required fees would undergo separate environmental review as they are proposed for construction.

Ramona Expressway is an east-west oriented roadway located along the Project site's southern boundary. Ramona Expressway would be improved to its ultimate half-section pavement width as an Expressway (184-foot right-of-way) from Nevada Avenue to Webster Avenue, consistent with the City's Standards. The outermost westbound lane would be a trap right-turn lane onto Nevada Avenue until the receiving lane to the west of Nevada Avenue is constructed.

Webster Avenue is a north-south oriented roadway located along the Project site's eastern boundary. Webster Avenue is currently constructed at its ultimate half-section pavement width as a Secondary Arterial (94-foot right-of-way) consistent with the PVCCSP and the City of Perris General Plan Circulation Element. No expansion of Webster Avenue would occur, but improvements along the curb, gutter, and sidewalk would occur to accommodate Project driveways.

The proposed Project would include site access improvements from Ramona Expressway and Webster Avenue via six driveways, described in detail below.

Driveway 1 at Nevada Avenue and Ramona Expressway – Install a traffic signal and construct the intersection with the following geometrics:

- Northbound Avenue: Not Applicable (N/A)
- Southbound Approach (Project Driveway 1): Left turn lane and a shared through-right turn lane.
- Eastbound Approach: Left turn lane to be modified to provide a minimum of 300 feet of storage.
- Westbound Approach: Right-turn trap-lane until Ramona Expressway is constructed to its full-width, at which time a third through-lane could be constructed with the addition of a receiving lane along Ramona Expressway from Driveway 1.

Driveway 2 at Ramona Expressway – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach (Project Driveway 2): One right turn only lane
- Eastbound Approach: N/A
- Westbound Approach: Shared through-right turn lane

Driveway 3 at Ramona Expressway – Install a traffic signal aligned with future development south of Ramona Expressway and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach (Project Driveway 3): Left turn lane and shared through-right turn lane
- Eastbound Approach: Left turn lane with a minimum of 225 feet of storage
- Westbound Approach: Shared through-right turn lane

Driveway 4 at Ramona Expressway – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach (Project Driveway 4): One right turn only lane
- Eastbound Approach: N/A
- Westbound Approach: Shared through-right turn lane

Driveway 5 at Webster Avenue – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: Left turn lane with a minimum of 100 feet of storage
- Southbound Approach: N/A
- Eastbound Approach (Project Driveway 5): Shared left-through-right turn lane
- Westbound Approach: N/A

Driveway 6 at Webster Avenue – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach: N/A
- Eastbound Approach (Project Driveway 6): One right turn only lane
- Westbound Approach: N/A

Wherever necessary, roadways adjacent to the Project site, site access points and site-adjacent intersections would be constructed to be consistent with the identified roadway classification and respective cross-sections in the PVCCSP or City of Perris General Plan Circulation Element.

Non-Vehicular Circulation

The City's Circulation Element recommends a Class IV bike lane along the site's Ramona Expressway frontage, a Class II bike land along the site's Webster Avenue frontage, and a Class I Bike path along Nevada Avenue south of the Project site. A meandering walkway would be installed along the Project's Ramona Expressway frontage. The buildings are proposed to be oriented so that entrances and entry access points are easily identified from a distance by pedestrians and/or vehicular traffic. Furthermore, crosswalks would be installed at intersections and within parking areas to ensure pedestrian safety.

Parking

The Project has been designed to comply with Sections 4.2.2.4 and 7.2.1.3 of the PVCCSP and Chapter 19.69 of the City's Zoning Ordinance related to parking requirements. Parking for customers of the commercial uses would be dispersed throughout the site between and surrounding the proposed businesses. The Project would include a total of 486 automobile parking stalls on-site, which would comply with the requirements outlined in the City's Zoning Ordinance. Automobile parking would consist of standard spaces, van accessible spaces, clean air/vanpool/electric vehicle spaces and accessible spaces. Pursuant to Section 5.106.5.3.1 of the 2022 CALGreen Code, 98 of the automobile parking spaces (20 percent of total) would be capable of supporting electric vehicle charging infrastructure and 25 percent of those designated parking spaces (25 spaces) would provide infrastructure for the charging of electric vehicles at the time that the Project opens.

Landscape, Lighting, and Screen Walls

Landscape and Hardscape

The PVCCSP requires a minimum 10 percent landscape coverage for development in Commercial areas. The proposed Project includes landscape coverage of approximately 23 percent of the western site and approximately 10 percent of the eastern site. Landscape materials would include a variety of trees (e.g., for accent, screening, shade, and street), and shrubs (e.g., for accent, groundcover, screening). Proposed plant materials would have either low or moderate water needs and would be consistent with Section 6.1.3 of the PVCCSP, On-Site Plant Palette, or if approved by the City, plants that are consistent with California Friendly Landscape and that meet all minimum City of Perris Water Conservation Requirements, as defined in Chapter 19.70 of the City's Zoning Ordinance.

Lighting

Section 4.2.4 of the PVCCSP addresses lighting standards and guidelines, including general lighting, decorative lighting, and parking lot lighting standards. The Project would comply with applicable lighting standards and guidelines, and with lighting standards established by the City, the CALGreen Code, and Title 24 Energy Efficiency Standards. The Project would include lighting elements for safety and security of the proposed development. New sources of light would primarily include parking lot lighting, outdoor security lighting for the proposed buildings, and lighted signage. Lighting improvements on site would be shielded to avoid light pollution on neighboring properties and surrounding roadways, and to protect aircraft from glint and glare on final approach to MARB/IPA.

Screen Walls

A six-foot-high masonry wall would be constructed along the western edge of the Project site adjacent to I-215. An existing screen wall along the northern edge of the Project site provides separation of the Project site and adjacent warehouse uses for privacy, noise control, and security. No alterations to this wall would occur as part of the proposed Project.

Utilities and Infrastructure

Utilities at the Project site would tie into existing utility systems in the Project vicinity and the Project developer would construct the necessary connections to serve the Project. Specific service connections required for the Project are described in detail below.

Water and Wastewater Service

Water and wastewater service would be provided to the Project by the Eastern Municipal Water District (EMWD). An existing 12-inch water main and an existing 16-inch sewer main within Webster Avenue would serve the Project. The Project developer would construct connections to these mains approximately 330 feet north of Ramona Expressway and the primary water and sewer lines serving the proposed buildings would run along north edge of the Project site with smaller laterals constructed throughout the site. The Project applicant would be required to pay applicable water and sewer connection fees in effect at the time of service connection.

Natural Gas Service

Natural gas service would be provided to the Project by the Southern California Gas Company (SoCalGas). Existing natural gas transmission pipelines and local service pipelines run within Webster Avenue and the Project is anticipated to make a connection to these pipelines within a developed easement east of Webster Avenue. The property owners would apply to SoCalGas to establish commercial customer connections to feed the commercial natural gas meters for the various uses proposed within the Project site. The final connection locations would be determined by SoCalGas.

Electric Service

Electric service would be provided to the Project by Southern California Edison (SCE). Electricity would be provided via a connection to the existing power supply east of Webster Avenue and the installation of power lines under the site to connect to various transformers throughout the Project site. The property owners would apply to SCE to establish commercial customer connections and these connections would feed commercial electric transformers and meters for various uses within the Project site. Telecommunications services are available from the same location and would be fed through the same pull box within the northeastern portion of the Project site.

Drainage

The Perris Valley Master Drainage Plan includes future storm drain and detention basins to capture surface runoff and convey it into underground storm drains before continuing to the Perris Valley storm drain system. Runoff from the Project site would be collected via underground storage facilities within each parcel, which would also provide water quality treatment. Surface runoff would be pumped from each of the underground storage facilities to a bioswale, which would be used to treat runoff before flows from the Project site are outlet.

In addition to on-site runoff collection and treatment systems, the Project includes the installation of a 36-inch reinforced concrete storm drainpipe along Ramona Expressway that would accept and route off-site flows that drain to the southwest corner of the Project site. This off-site storm drainpipe would also function as the overflow path for on-site underground storage facilities. Off-site flows through this storm drainpipe would be carried to the east where they would outfall to the existing outlet at the southeast corner of the Project site. An existing headwall under Webster Avenue would be removed and replaced with a storm drain maintenance hole.

Project Operations

The proposed Project would involve the operation of a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash. At the time of this analysis, the future owners and occupants of the proposed buildings were unknown. For purposes of this evaluation, the buildings are assumed to be operational 24 hours per day, seven days per week, with exterior loading and parking areas illuminated at night.

Construction Activities

Construction of the Project is anticipated to occur over an approximately 19-month period, requiring site preparation, grading, building construction, paving, and architectural coating activities. Construction of the Project would require common construction equipment. The site-specific construction fleet may vary due to specific needs at the time of construction; however, a summary of construction equipment assumptions by construction phase used for purposes of analysis is provided in Table 1, *Construction Equipment Assumptions*. The duration of construction activity and associated equipment was based on information provided by the Project applicant and represents a reasonable approximation of the expected construction fleet.

Table 1
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment	Number	Hours/Day
Site Preparation		
Rubber Tired Dozers	3	8
Crawler Tractors	4	8
Grading		
Excavators	2	8
Graders	1	8
Rubber Tired Dozers	1	8
Scrapers	2	8
Crawler Tractors	2	8
Building Construction		
Cranes	1	8
Forklifts	3	8
Generator Sets	1	8
Tractors/Loaders/Backhoes	3	8
Welders	1	8
Paving		
Pavers	2	8
Paving Equipment	2	8
Rollers	2	8
Architectural Coating		
Air Compressors	1	8

Source: Urban Crossroads 2023a

Construction workers would travel to the Project site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Grading for the Project is anticipated to balance earthwork quantities on-site and would not require soil import or export.

Construction activity is regulated by the City's Municipal Code, Section 7.34.060, which allows construction activities during daytime hours (between the hours of 7:00 am and 7:00 pm), Monday through Saturday, except for legal holidays. Construction equipment is expected to operate at the Project site up to 8 hours per day during the allowed days and time period; however, the typical working hours for most construction contractors are 7:00 a.m. to 4:00 p.m., and construction equipment is not in continual use; each piece of equipment is used only periodically during a typical construction workday. Should construction activities need to occur outside of the hours permitted by the Municipal Code, the Project developer would be required to obtain authorization from the City. Should on-site concrete pouring activities need to occur at night to facilitate proper concrete curing, pours would typically occur between the hours of 2:00 a.m. and 8:00 a.m.

Lights may be used within the construction areas, notably the construction staging areas, to provide security for construction equipment and construction materials. Further, in the event that construction-related activities occur during nighttime hours on the Project site, temporary, overhead artificial lighting would be provided to illuminate the work area.

Conditional Use Permits

The Project applicant proposes the development and operation of a self-storage facility, six fast-foot restaurants including drive-through services, and two gas stations with a total of 32 fueling stations and associated convenience stores with alcohol sales. With approval of the proposed Specific Plan Amendment, the proposed self-storage uses would be conditionally allowed within the Commercial land use designation. Drive-through restaurant and fueling land uses are allowed within the Commercial land use designation but also require approval of a CUP prior to operation. Therefore, the Project requires approval of three CUPs; one for the operation of self-storage uses, one for drive-through services, and one for gas station uses including convenience stores with alcohol sales.

1.6 Summary of Requested Actions

The City has primary approval responsibility for the Project and is identified as the CEQA Lead Agency for the Project, pursuant to CEQA Guidelines Section 15050. Because the Project requires a Specific Plan Amendment, the City Council is the decision-making authority for the requested discretionary applications (e.g., the Specific Plan Amendment, Tentative Parcel Map, Development Plan Review, and CUPs). The City's Planning Commission will consider the Specific Plan Amendment, Project Development Plan, CUPs, and the Final CEQA document and make a recommendation to City Council whether the Project and Final CEQA document should be approved. The City Council will make the ultimate decision if the Final CEQA document should be approved and whether to approve, approve with changes, or deny the Project. In the event of approval of the Project, the City would subsequently conduct administrative reviews and issue ministerial permits and approvals to implement Project requirements and conditions of approval.

The Final CEQA document informs state, regional, and local government approvals needed for construction and/or operation of the Project, regardless of whether such actions are known at this time or explicitly listed. A list of the anticipated actions under City jurisdiction is provided in Table 2, *Project Related Approvals/Permits*. In addition, other actions may be necessary from other government agencies to fully implement the Project. Table 2 also lists the government agencies that may be required to use the Final CEQA document during their consultation and review of the Project and its

implementing actions and provides a summary of the anticipated subsequent actions associated with the Project.

Table 2
PROJECT RELATED APPROVALS/PERMITS

Agency	Approvals and Decisions
Discretionary Approvals	
City of Perris City Council	• Certification of the Environmental Impact Report (Case No. XX) with the determination that the EIR has been prepared in compliance with the requirements of CEQA. • Specific Plan Amendment (SPA 22-05280) to add self-storage as a conditionally permitted use within the PVCCSP Commercial land use designation. • Tentative Parcel Map (TPM 22-05275 [38576]) to subdivide the existing two-parcel western site into four parcels. • Tentative Parcel Map (TPM 24-05150 [38985]) to subdivide the existing one-parcel eastern site into four parcels. • Development Plan Review (DPR 22-00028) to approve the proposed western site development plan. • Development Plan Review (DPR 23-00021) to approve the proposed eastern site development plan. • Conditional Use Permit (CUP 22-05295) to allow self-storage uses on the site, designated as Commercial under the PVCCSP. • Conditional Use Permit (CUP 24-05141) to allow drive-through services on the site, designated as Commercial under the PVCCSP. • Conditional Use Permit (CUP 24-05142) to allow gas station uses with alcohol sales for off-site consumption on the site, designated as Commercial under the PVCCSP.
Riverside County Airport Land Use Commission (ALUC)	• Consistency Review (Approved July 11, 2024)
Non-Discretionary Approvals	
City of Perris Development Services	• All on-site plans, including grading, drainage, and utilities • Water Quality Management Plan (WQMP)
Regional Water Quality Control Board (RWQCB)	• Issuance of a Construction Activity General Construction Permit • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit • Report of Waste Discharge or Water Quality Certification
South Coast Air Quality Management District (AQMD)	• Permits to construct and/or permits to operate new stationary sources of equipment that emit or control air contaminants, such as heating, ventilation, and air conditioning (HVAC) units
Other Utility Agencies	• Permits and associated approvals, as necessary for the installation of new utility infrastructure or connections to existing facilities

2.0 Determination

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☒ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

2.2 Determination

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that, although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☒ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been adequately addressed by mitigation measures as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be adequately mitigated.

☐ I find that, although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Mathew Evans

Signature

07-29-2024

Date

Mathew Evans

Printed name

CITY OF PERRIS

For

3.0 Environmental Initial Study Checklist

The lead agency has defined the column headings in the environmental checklist as follows:

A. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

B. “Less Than Significant with Mitigation Incorporated” applies where the inclusion of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

C. “Less Than Significant Impact” applies where the project does not create an impact that exceeds a stated significance threshold.

D. “No Impact” applies where a project does not create an impact in that category. “No Impact” answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

I. Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the Project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Applicable PVCCSP Standards and Guidelines

The PVCCSP includes Standards and Guidelines relevant to aesthetics/visual character and lighting. The applicable Standards and Guidelines summarized below are incorporated into the proposed Project design and therefore part of the Project analyzed in this section. Additional Standards and Guidelines related to building design are incorporated into the Project in accordance with the PVCCSP; however, the following provides an overview of the themes of these standards. The chapters/section numbers provided correspond to the PVCCSP chapters/sections. There are no mitigation measures for aesthetics included in the PVCCSP EIR.

On-Site Design Standards and Guidelines (Chapter 4.0 of the PVCCSP)

4.1 Perris Valley Commerce Center On-Site Development Standards

In order to ensure the orderly, consistent, and sensible development of the PVCCSP land use standards and design criteria have been created for each land use category. These standards include minimum lot dimensions, maximum structure sizes, and setback requirements. Development standards are amended for sites in the AOZ according to Table 12.0-1 of the PVCCSP.

4.2 On-Site Design Standards and Guidelines

The On-Site Design Standards and Guidelines identify techniques and minimum standards for achieving the level of design quality that the community of Perris has come to desire in new development. These may be interpreted with some flexibility with the ultimate goal to attain the best possible design for the

various land uses and developments within the PVCC area. The following sections provide summaries of some of the On-Site Design Standards and Guidelines applicable to the proposed Project.

4.2.1 General On-Site Project Development Standards and Guidelines

Properties within the PVCC shall be developed in general conformance with the Land Use Plan. Use and development standards will be in accordance with the City of Perris Municipal Code Chapter 19 (Zoning/Land Use Ordinance) as amended by the PVCCSP zoning ordinance, and further defined by the Specific Plan objectives, design guidelines, as well as future detailed development proposals including subdivisions, development plans, and CUPs.

Accident Potential Zones (APZs). All proposed projects that lie within APZs must comply with AOZ Standards.

4.2.2 Site Layout for Commerce Zones

Building Orientation/Placement. Accentuate public streets by locating building frontages and their entrances toward public right-of-way. Buildings should be orientated so that entrances and entry access points are easily identified from a distance by pedestrians and/or vehicular traffic. Reinforce entries with architectural material, and landscape features so they are clearly identifiable. Loading areas and employee parking lots should be located at the side and rear of buildings when possible. Promoting walkability and circulation is encouraged through placement of buildings and pedestrian circulation facilities. Utilize building placement, accented walls, or unique design to effectively screen views of loading docks, storage area, and/or outdoor work areas that would otherwise be visible to public view.

Vehicular Access and On-Site Circulation. Site design should address the intended functions of the facilities beginning with safe, definable site access that creates a sense of arrival. Site access should promote safety, efficiency, convenience, and minimize conflict between employee/customer vehicles and large trucks by creating separate access points when possible. Reciprocal ingress/egress access easements shall be provided for circulation and parking to facilitate ease of vehicular movement between properties and to limit the number of vehicular access points to adjoining streets. Parking lots should be screened from public view through the use of berms, low walls and/or plant materials.

4.2.3 Architecture

Scale, Massing, and Building Relief. Scaling of buildings in relationship to neighboring structures and adjacent developments should be considered to promote compatible design. Provide variation in plane and form of buildings and resulting adjacent spaces both inside and out with the use of recesses, varied roof lines, pop-outs, positioning and relationships of buildings in all areas visited by the general public and/or office areas. Avoid monotony and repetition in building elevations and the street scene by incorporating varying building heights, massing, roof lines, design elements, color variation, reveal lines, window treatments, texture and materials, building placement, and landscape.

Architectural Elevations and Details. Develop and adhere to a consistent design character and style that provides complementary buildings, ancillary structures, and landscape elements in conjunction with these standards. Building relief shall be provided along all facades visible from streets and highways, areas accessible to and visible by the public.

Color and Materials. The use of low reflectance, subtle, neutral, or earth tone colors as the predominant colors on the facade is encouraged. Building trim and accent areas may feature brighter colors, including primary colors. Metal siding as the primary sheathing of the facade is prohibited where visible from the public. Metal may be used as an architectural treatment or aesthetic accent in the form of awnings, trellises, exposed structural beams, and accent relief features such as columns for canopies. The use of high quality natural building materials such as brick, stone, tinted/textured concrete (tilt-up) are appropriate.

Furnishings. Site furnishings such as benches, tables, trash receptacles, planters, tree grates, kiosks, drinking fountains, and other pedestrian amenities should be integral elements of the building and landscape design, and placed in plazas, at building entrances, open spaces and other pedestrian areas to create a more pedestrian friendly environment. Newspaper racks, phone booths, ATM machines, and reverse vending machines should be incorporated into the site design and, to the extent possible, compatible with the design, colors, or style of the structure.

4.2.4 Lighting

All projects shall consider proper lighting for safety and security purposes. All lighting fixtures shall be fully shielded with cut-off fixtures so that there is no glare emitted onto adjacent properties or above the lowest part of the fixture. Parking area lighting shall be provided pursuant to Section 19.02.110.A. All outdoor lighting and utilities, including spotlights, floodlights, electrical reflectors, and other means of illumination for signs, structures, landscaping, and similar areas, shall be made of metal, unbreakable plastic, recessed, or otherwise designed to reduce the problems associated with damage and replacement of fixtures. Fixtures shall be vandal proof. Fixtures should be anchored with concrete footing if low voltage lighting is used. Parking areas shall have lighting which provides adequate illumination for safety and security. Parking lot lighting fixtures shall maintain a minimum of 1-foot candlepower across the surface of the parking area. Parking lot lights shall be located such that they do not conflict or displace intended tree planting locations.

Commercial Design Standards and Guidelines (Chapter 7.0 of the PVCCSP)

7.2.2 Architecture

Scale, Massing, and Building Relief. Building and site development shall incorporate an architectural component that provides an identity for the Project. Provide defined and recognizable building entrances to ensure they can be differentiated from other facade enhancements. Attractive facades should be provided through careful detailing, especially at the base of buildings, along eaves, parapets and around entries and windows. A single, large, dominant building mass shall be avoided to the extent feasible.

Architectural Elevations and Details. Primary building entries should be highlighted through the massing of the building, as well as special architectural materials and/or design features. Windows and storefronts should be designed as defined, offset, openings within a solid wall rather than large unbroken expanses of a flush wall and window pane.

Color and Materials. Window glazing used in commercial development should permit views into the establishment. Use of highly reflective and spandrel glass is strongly discouraged.

7.2.3 Lighting

Low wattage down-lighting should be used on commercial buildings, provided that all exterior lighting complies with Riverside County Ordinance No. 655 regulating light pollution and its detrimental impact on astronomical observation and research.

7.2.4 Signage

Any sign program along a major roadway shall include signage at main and secondary entrances, as well as at major intersections, that include the PVCC logo.

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. Scenic vistas are generally defined as public viewpoints that provide expansive or notable views of a highly valued landscape and are typically identified in planning documents, such as a general plan, but can also include locally known areas or locations where high quality public views are available. The City's General Plan, PVCCSP, and PVCCSP EIR do not identify or otherwise designate scenic vistas or protected viewsheds; however, views of natural landforms are available throughout the City, such as Lake Perris Dam, the Russell Mountains and Bernasconi Hills (all of which are located approximately four miles east of the Project site), and Gavilan Hills and Motte-Rimrock Reserve (located approximately four and three miles southwest of the Project site, respectively).

Impacts on scenic vistas can result from development directly diminishing the scenic quality of the view or by blocking view corridors. Due to the relatively flat and broad nature of the City's topography, including the Project site and immediately surrounding areas, Section 6.1 of the City's General Plan EIR identified that "virtually all future building construction consistent with land use and development standards…will obstruct views to the foothills from at least some vantage points." The City's General Plan EIR concludes that the City's east-west and north-south oriented roadways are intended to frame and preserve scenic views towards distant horizons and foothills. Additionally, the PVCCSP EIR Initial Study determined that the PVCC was not located within a scenic vista corridor and that development allowed by the PVCCSP would not adversely impact a scenic vista.

The Project site is relatively flat and undeveloped with little topographical change and sparse vegetation. Development at the Project site would include commercial land uses and associated parking and landscaping bordering Ramona Expressway and Webster Avenue, which are east-west and north-south trending roadways, respectively, within the Visual Overlay Zone of the PVCCSP. I-215 is also within the Freeway Corridor of the PVCCSP Visual Overlay Zone and motorists traveling along I-215 would have views of the Project site; however, this is not within the viewshed of a scenic vista. While development of the Project may obstruct views to the foothills from at least some vantage points, the Project site is located within the boundaries of the PVCC and would not adversely impact a scenic vista. Furthermore, the building design would be consistent with land use development regulations, including the PVCCSP design standards described above. The Project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant; therefore, no further analysis is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Project site is vacant and does not contain scenic resources such as trees, rock outcroppings, or historic buildings. Further, while there are three officially designated state scenic highways in Riverside County, including SR 62, SR 74, and SR 243, none of these designated state scenic highways have views of the Project site given that the nearest state scenic highway is SR 74, approximately four miles from the Project site (California Department of Transportation [Caltrans] 2023). Thus, as the Project site is not visible from an officially designated state scenic highway and no unique scenic resources exist on-site, there would be no impact to scenic resources within a state scenic highway. No further analysis is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The existing visual character of the Project site and surrounding area is characterized by urbanizing commercial and industrial land uses that have been implemented according to the PVCCSP, which was developed to transition a formerly agricultural area to a modern-day regional commerce center. Development immediately surrounding the vacant and undeveloped Project site includes a gas station, single-family residential uses, commercial retail development, and warehouse buildings, as well as vacant and undeveloped land. The Project site is zoned for commercial uses and proposes development consistent with that designation. The addition of a self-storage facility to the allowable land uses within the Commercial land use designation would not result in substantially altered visual effects than would occur with other commercial development. Therefore, although the Project site would be converted from a vacant lot to a developed commercial site, this conversion is consistent with surrounding existing and planned land uses, as identified in the PVCCSP, and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

The Project would also comply with applicable site development criteria contained within the PVCCSP, such as height limitations and setbacks as well as guidelines for projects within the Visual Overlay Zone. As shown in Figure 8, the Project includes a screening wall between the proposed self-storage facility and I-215. Views for motorists on I-215 would not be substantially degraded given the line of sight from I-215 is above the proposed finished floor height and visible portions of the building would be the upper portion where architectural parapets would be constructed, as shown in Figure 7. Landscaping and architectural elements would be provided along the major roadway frontages of the Project site. Therefore, the Project would be consistent with the planned site uses and would not conflict with applicable zoning or other regulations governing scenic quality. Impacts associated with the visual character and quality and applicable regulations governing scenic quality would be less than significant and no further analysis is required.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less Than Significant Impact. There are two primary artificial sources of light that generally affect an urban environment: light emanating from building interiors that passes through windows to the outside,

and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting) that affect the natural ambient light level. The introduction of light can be a nuisance by affecting adjacent areas and diminishing the view of the clear night sky depending on the location of the light sources and its proximity to nearby light-sensitive areas. Glare can be caused by unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from a simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Glare results from development and associated parking areas that contain reflective materials such as hi-efficiency window glass, highly polished surfaces, and expanses of pavement. The Project site is in a developing area with a mix of commercial and industrial development as well as vacant land that is identified for development in the PVCCSP. Existing lighting in the Project vicinity includes streetlights and vehicle lights along surrounding roadways, as well as interior and exterior building lighting emanating from the developed commercial and industrial sites.

The Project would introduce new lighting at a vacant site without existing light sources; however, land uses and roadways surrounding the Project site generate light in the Project vicinity. Project lighting is anticipated to include a combination of operational, street, and security lighting on building exteriors and in parking areas that would conform to the California Building Standards Code, Title 24, and City standards that regulate outdoor lighting. Specifically, City Municipal Code Section 19.02.110 requires the use of certain types of light fixtures on non-residential properties in an effort to minimize the amount of light cast on adjoining properties, the public right-of-way, and into the night sky. Exterior lighting may be used during nighttime hours and lighting may be required especially during non-daylight-savings-time months. During any non-operational hours, the proposed buildings would only support security lighting. The proposed Project would also comply with the lighting requirements in the PVCCSP, which contains lighting standards for general, decorative, and parking lot lighting. Therefore, while the Project would introduce new sources of light to the Project site, such lighting would comply with applicable regulations and would not adversely affect day or nighttime views in the area. Impacts related to permanent lighting sources would be less than significant and no further analysis is required.

During construction, lights may be used within the construction areas, notably the construction staging areas, to provide security for construction equipment and construction materials. Further, in the event that construction-related activities occur during nighttime hours on the Project site, temporary, overhead artificial lighting would be provided to illuminate the work area. Due to the distance between the construction area and residents to the east as well as motorists on adjacent roadways, such security lights and work area lights would not result in substantial light or glare for residents or motorists. The City's standard review and approval process for projects requesting allowances for nighttime construction would further ensure lighting would not adversely affect residents or motorists. Impacts related to construction light and glare would be less than significant and no further analysis is required.

The PVCCSP Standards and Guidelines related to colors and materials (Section 4.2.3.5 of the PVCCSP) encourage the use of low-reflectance facades and prohibit metal siding where visible from the public. According to the PVCCSP, building materials should generally include wood, brick, native stone, and tinted/textured concrete. Further, as identified in Section 12.1.3 of the PVCCSP, any use that would cause sunlight to be reflected towards an aircraft engaged in a climb following takeoff or descent towards a landing at an airport is prohibited. The proposed buildings would be constructed of plaster walls in neutral tones with accents of natural materials and occasional primary colors, consistent with PVCCSP Standards and Guidelines. Building sidings would not be constructed primarily of metal or high-glare windows and no permanent source of substantial glare would be installed. Compliance with the requirements of the PVCCSP related to building materials would ensure that glare does not create a

nuisance to on- and off-site viewers of the Project site or aircraft traveling to or from MARB/IPA. Therefore, permanent impacts related to glare would be less than significant and no further analysis is required.

II. Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non- forest use?	☐	☐	☐	☒

Applicable PVCCSP Standards and Guidelines

There are no Standards and Guidelines or mitigation measures related to agriculture and forestry resources included in the PVCCSP or its associated PVCCSP EIR.

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Farmland Mapping and Monitoring Program is a statewide program that designates farmland among several categories, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. The Farmland Mapping and Monitoring Program is maintained by the California Department of Conservation, the agency responsible for overseeing farmland classification throughout the state. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. Unique Farmland is land, other than Prime Farmland, that has combined conditions to produce sustained high quality and high yields of specialty crops. Farmland of Statewide

Importance may include tracts of land that have been designated for agriculture by State law. In some areas that are not identified as having national or statewide importance, agricultural land is classified as Farmland of Local Importance.

According to the Farmland Mapping and Monitoring Program online mapping database (California Department of Conservation 2022), the Project site is classified as Farmland of Local Importance and does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). Further, while the undeveloped Project site would be converted from vacant to developed land, the conversion would not include the loss of active farmland. As there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) at the Project site, no impact would occur in relation to this issue and no further analysis is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use; in return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The Williamson Act is only applicable to parcels within an established agricultural preserve consisting of at least 20 acres of Prime Farmland, or at least 40 acres of land not designated as Prime Farmland. The Williamson Act is designed to prevent the premature and unnecessary conversion of open space lands and agricultural areas to urban uses.

As stated above, the Project site is located in an area classified by the Department of Conservation as Farmland of Local Importance where no active farmland nor agricultural resources are present. Additionally, the Project site is not within an established agricultural preserve consisting of at least 20 acres of Prime Farmland or at least 40 acres of land not designated as Prime Farmland. Further, the Conservation Element of the General Plan does not map Williamson Act land within the Project site (City 2008). Finally, the Project site is zoned Commercial in the PVCCSP. Therefore, the Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract and no impact would occur. No further analysis is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. Public Resources Code Section 12220(g) defines “forest land” as land that can support 10 percent native cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Based on this definition, no forest land occurs within or adjacent to the City of Perris. Public Resources Code Section 4256 defines “timberland” as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for growing a crop of trees of a commercial species used to produce lumber and other forest products. Based on this definition, no timberland occurs within or adjacent to the City of Perris. A Timberland Production Zone is defined by Government Code Section 51104(g) as an area which has been zoned for growing and harvesting timber. Because no timberland exists within the City of Perris, no Timberland Production Zones exist within or adjacent to the City of Perris. There are no trees within the Project site. Therefore, the proposed Project would not conflict

with existing zoning for forest land or timberland. No impact to forest land, timberland, or timberland zoned Timberland Production would occur and no further analysis is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As stated under Initial Study Checklist item II.c), above, there is no concentration of trees on the site that would constitute a forest. The site has not been historically and is not currently used or planned to be used for forest land. As such, implementation of the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur in relation to this issue and no further analysis is required.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As stated under Initial Study Checklist items II.a) through d), above, the Project site is located within an area classified as Farmland of Local Importance, but no agricultural resources are present on the Project site or immediate vicinity. Land to the south of the Project site is similarly vacant and disturbed. To the north are four warehouses and a distribution center. Several businesses, including a gas station, car wash, and fast-food establishments occupy the lot bordering Ramona Expressway to the east. The majority of the surrounding area is classified as Urban and Built-Up Land. Additionally, there is no concentration of trees that would constitute a forest within the Project site. The proposed Project would result in the conversion of the undeveloped Project site to a developed use, but the Project site does not contain agriculture or forest uses under existing conditions. Therefore, implementation of the Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur in relation to this issue and no further analysis is required.

III. Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

The PVCCSP does not include Standards and Guidelines relevant to the analysis of air quality impacts. The following PVCCSP EIR mitigation measures are applicable to the proposed Project. The SCAQMD referenced in these mitigation measures is the South Coast Air Quality Management District although the technical discussion in this Initial Study refers to it as the South Coast AQMD.

MM Air 1 To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 2 Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/ or signal synchronization to improve traffic flow.

MM Air 3 To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/ loose soil moist at all times,

- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the Project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials, and
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air 4 Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or USEPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air 7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 8 Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at

least 50 percent or other application techniques with equivalent or higher transfer efficiency.

MM Air 9 To reduce VOC emissions associated with architectural coating, the Project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a volatile organic compound (VOC) content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

MM Air 10 To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, CO Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits.

MM Air 18 Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of American with Disabilities Act (ADA)-compliant paths to the major building entrances in the project.

MM Air 19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the

City shall include the installation of energy-efficient street lighting throughout the project sites. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air 20 Each implementing development project shall implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The Project site is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. Air quality in the South Coast Air Basin is under the jurisdiction of the South Coast Air Quality Management District (AQMD). As a regional agency, the South Coast AQMD works directly with SCAG, county transportation commissions, and local governments, as well as cooperates actively with all federal and state government agencies. The South Coast AQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary. The South Coast AQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). The air quality plan applicable to the proposed Project is the South Coast AQMD's AQMP.

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, economy, community development, and environment. Regarding air quality planning, SCAG has prepared Connect SoCal 2020, a long-range transportation plan that uses growth forecasts to project trends over a 20-year period to identify regional transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. Both Connect SoCal 2020 and AQMP are based, in part, on growth projections originating with county and city general plans and specific plans.

Consistency with the AQMP is determined by assessing whether a project would delay the attainment of air quality standards or exceed the growth assumptions included in the AQMP. Projects that are consistent with the land use designation for their project site are generally consistent with the population and growth assumptions used in the AQMP. The proposed Project does not have a residential component and would not result in regional population growth. The proposed Project would be consistent with the intensity of the Commercial land use designation given in the PVCCSP and would not result in growth exceeding the assumptions in the AQMP. However, the Project would result in emissions exceeding the applicable thresholds during operation and could delay attainment of the applicable air quality standards. Therefore, the proposed Project may have a potentially significant impact related to air quality plans and further analysis is required in an EIR.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Potentially Significant Impact. The South Coast Air Basin is a federal and/or state nonattainment area for ozone, particulate matter 10 microns or less in diameter (PM_{10}), and particulate matter 2.5 microns or less in diameter ($PM_{2.5}$). Air quality impacts are divided into short-term construction-related and long-term operational impacts. Short-term impacts are the result of demolition, grading, and/or construction operations. Long-term impacts are associated with the long-term operations of a project. If the mass regional emissions calculated for a project exceed the applicable South Coast AQMD daily significance thresholds that are designed to assist the region in attaining the applicable state and national ambient air quality standards, that project is considered to generate cumulatively considerable pollutant emissions. Implementation of the proposed Project may increase existing levels of criteria pollutants and contribute to their nonattainment status in the South Coast Air Basin during both construction and operational activities. Thus, an air quality analysis will be prepared to determine if the Project would result in a cumulatively considerable net increase in any criteria air pollutant. This topic will be addressed in an EIR.

c) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. The California Air Resources Board (CARB) and the Office of Environmental Health Assessment have identified the following groups of individuals as the mostly likely to be affected by air pollution: adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The closest existing sensitive receptor locations to the Project site are the single-family residences on parcels across Webster Avenue from the Project site to the northeast and an isolated residence to the southeast. Due to the presence of sensitive receptors in the vicinity and the volume of traffic to and from the Project, there is the potential to expose nearby sensitive receptors to substantial pollutant concentrations. Therefore, this topic will be further evaluated in an EIR.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. According to the South Coast AQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations. The proposed Project, involving a self-storage facility, two sit-down restaurants, six fast-food restaurants, two gas stations including convenience stores, and a car wash, would not include any of these uses nor are there any of these land uses in the Project vicinity.

Emissions from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. Furthermore, short term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Long-term operation of the Project would not be a substantial source of objectionable odors. The Project would also be required to comply with South Coast AQMD Rule 402 to prevent occurrences of public nuisances. Therefore, the Project would not create objectionable odors affecting a substantial number of people, the impact would be less than significant and no further analysis is required.

IV. Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

A Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis (MSHCP Consistency Analysis) prepared by Principe and Associates was prepared for the proposed Project and is attached to this Initial Study as Appendix A (Principe and Associates 2024). The report analyzes the potential impacts of the Project pursuant to the requirements of the adopted MSHCP. Subsequently, a Crotch's Bumble Bee Habitat Assessment was prepared for the Project (HELIX Environmental Planning 2024) and is attached to this Initial Study as Appendix B. The findings and recommendations of these reports are incorporated into the following analysis.

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

There are no PVCCSP Standards and Guidelines applicable to the analysis of biological resources for the proposed Project. The PVCCSP EIR mitigation measure that is applicable to the proposed Project is as follows. The MBTA referenced in this mitigation measure is the Migratory Bird Treaty Act of 1918.

MM Bio 1 In order to avoid violation of the MBTA and the California Fish and Game Code, site preparation activities (removal of trees and vegetation) for all PVCC implementing development and infrastructure projects shall be avoided, to the greatest extent possible, during the nesting season (generally February 1 to August 31) of potentially occurring native and migratory bird species.

If site-preparation activities for an implementing project are proposed during the nesting/breeding season (February 1 to August 31), a pre-activity field survey shall be conducted by a qualified biologist prior to the issuance of grading permits for such project, to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone. If active nests are not located within the implementing project site and an appropriate buffer of 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or 100 feet of sensitive or protected songbird nests, construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, no grading or heavy equipment activity shall take place within at least 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected (under MBTA or California Fish and Game Code) bird nests (non-listed), or within 100 feet of sensitive or protected songbird nests until the nest is no longer active.

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. Surveys of the Project site were conducted by Principe and Associates as part of the MSHCP Consistency Analysis and HELIX Environmental Planning for the Crotch's Bumble Bee Habitat Assessment. Based on their observations, the site is currently undeveloped and comprised of disturbed non-native grasslands. Special-status wildlife and plant species that may occur within the Project site and the Project's potential associated effects are described below.

Wildlife

According to the MSHCP Consistency Analysis prepared for the Project, thirteen Federal- and State-Listed Wildlife Species have been reported to occur within one to three miles of the Project site. Based on required habitats and geographic ranges, all thirteen species were determined to either be absent from or to have no probability to occur at the Project site. After the MSHCP Consistency Analysis was prepared, Crotch's bumble bee (*Bombus crotchii*) became a candidate species for listing under the California Endangered Species Act. The subsequent habitat assessment concluded the Project site does not contain suitable habitat for Crotch's bumble bee, as there was not sufficient nectar species on-site to sustain a colony for this species (HELIX 2024). Given that no listed wildlife species have the potential to occur within the Project site based on the lack of habitat, no impact to these species or their habitats would occur.

The Migratory Bird Treaty Act (MBTA) of 1918 is an international treaty that declares it unlawful to take, possess, buy sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations (CFR) Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing

regulations (50 CFR 21). In addition, Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

The Project site provides potential nesting habitat for a variety of birds and raptors protected under the MBTA and California Fish and Game Code. Vegetation removal during the nesting season (generally February 1st - August 31st although the nesting season may be extended due to weather and drought conditions) has the potential to result in adverse effects on nesting birds, if present, and impacts to nesting birds would be potentially significant. Implementation of Project mitigation measure MM BR 1 (replacing PVCCSP EIR mitigation measure MM Bio 1 per direction from the California Department of Fish and Wildlife) would reduce potential impacts to a less than significant level. Therefore, no further analysis is required.

Plants

The site is comprised of disturbed vegetation and habitat that is dominated by a low carpet of non-native grass and weeds. According to the biological evaluation conducted for the Project (Principe and Associates 2023; Appendix A), two special-status plant species have been reported to occur within one to three miles of the site. Based on required growing habitats and geographic ranges, the two plant species, long-spine spineflower and smooth tarplant, were determined to be either absent from or to have no probability to occur at the site. Native vegetation and habitats within the site have been eliminated due to long-term disturbances associated with agricultural and weed abatement activities. No special-status plant species have the potential to occur within the Project site and no impact to special-status plant species would occur as a result of the Project. No further analysis is required.

Project Mitigation Measures

MM BR 1 In order to avoid violation of the MBTA and the California Fish and Game Code, site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the Project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species.

If site-preparation activities are proposed during the nesting/breeding season, the Project proponent shall retain a qualified biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the Project to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone.

If active nests are not located within the Project site and an appropriate buffer of 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or 100 feet of sensitive or protected songbird nests, then construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, then the biologist shall immediately establish a conservative avoidance buffer surrounding the nest based on their best professional judgement and experience. The biologist shall monitor the nest at the onset of project activities, and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such project

activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The on-site qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. As described above, the Project site consists of non-native grasslands. No riparian habitats or other sensitive natural communities were identified within the Project site by Principe and Associates biologists. Given that no riparian or riverine areas occur on the Project site, no impacts to riparian habitat or other sensitive natural communities would occur, and no further analysis is required.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. According to the biological evaluation conducted for the Project (Principe and Associates 2024; Appendix A), there are no state or federally protected wetlands within the Project site. In addition, no riparian or riverine resources protected by the MSHCP occur within the Project site. As such, a substantial adverse effect on state or federally protected wetlands would not occur as a result of the Project. There would be no impact and no further analysis is required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project site is not located within an MSHCP Criteria Cell Group, Conservation area or other designated wildlife corridor. The Project site is bordered by Ramona Expressway followed by a mix of vacant and undeveloped land to the south, industrial uses to the north, a mix of commercial and residential uses to the east, and I-215 to the west. The Project site is not located near open space or native habitat and does not represent a wildlife movement corridor. Therefore, the Project would not result in interference with wildlife movement. There would be no impact and no further analysis is required.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Protected biological resources are not present within the site, and the proposed Project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur and no further analysis is required.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant Impact. The MSHCP is the habitat conservation plan applicable to the Project. The Project site is not located within an area dedicated to habitat conservation under the MSHCP and no habitat mitigation would be required. In addition, no riparian, riverine, or vernal pools are located within the Project site and the site is outside of survey areas for protected species. Therefore, the Project would not conflict with MSHCP Section 6.1.1 (Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy) Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool), Section 6.1.3 (Protection of Narrow Endemic Plant Species), or Section 6.3.2 (Additional Survey Needs and Procedures). The Project site is not located within or adjacent to an MSHCP Conservation Area and MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildland Interface) and Section 6.4 (Fuels Management) would not apply to the proposed Project. In conclusion, the proposed Project would not conflict with the MSHCP and would have a less than significant impact. No further analysis of biological resources is required.

V. Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

A Phase I Cultural Resources Assessment (Keller 2023) which is attached to this Initial Study as Appendix C, was prepared for the proposed Project site. Its findings and recommendations are incorporated into the following analysis.

Applicable PVCCSP Standards and Guidelines

There are no Standards and Guidelines included in the PVCCSP related to cultural resources. The Phase I Cultural Resources Assessment was prepared for the Project in compliance with the following applicable PVCCSP EIR mitigation measure:

MM Cultural 1 Prior to the consideration by the City of Perris of implementing development or infrastructure projects for properties that are vacant, undeveloped, or considered to be sensitive for cultural resources by the City of Perris Planning Division, a Phase I Cultural Resources Assessment of the subject property prepared in accordance with the protocol

of the City of Perris by a professional archeologist[1] shall be submitted to the City of Perris Planning Division for review and approval. The Phase I Cultural Resources Assessment shall determine whether the subject implementing development would potentially cause a substantial adverse change to any significant paleontological, archeological, or historic resources. The Phase I Cultural Resources Assessment shall be prepared to meet the standards established by Riverside County and shall, at a minimum, include the results of the following:

1. Records searches at the Eastern Information Center (EIC), the National or State Registry of Historic Places and any appropriate public, private, and tribal archives.

2. Sacred Lands File record search with the Native American Heritage Commission (NAHC) followed by project scoping with tribes recommended by the NAHC.

3. Field survey of the implementing development or infrastructure Project site.

The proponents of the subject implementing development projects and the professional archaeologists shall also contact the local Native American tribes (as identified by the California Native Heritage Commission and the City of Perris) to obtain input regarding the potential for Native American resources to occur at the Project site. Measures shall be identified to mitigate the known and potential significant effects of the implementing development or infrastructure project, if any. Mitigation for historic resources shall be considered in the following order of preference:

1. Avoidance

2. Changes to the structure provided pursuant to the Secretary of Interior's Standards

3. Relocation of the structure

4. Recordation of the structure to Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) standard if demolition is allowed

Avoidance is the preferred treatment for known and discovered significant prehistoric and historical archaeological sites, and sites containing Native American human remains. Where feasible, plans for implementing projects shall be developed to avoid known significant archaeological resources and sites containing human remains. Where avoidance of construction impacts is possible, the implementing projects shall be designed and landscaped in a manner, which would ensure that indirect impacts from increased public availability to these sites are avoided. Where avoidance is selected, archaeological resource sites and sites containing Native American human remains shall be placed within permanent conservation easements or dedicated open space areas.

[1] For the purpose of this measure, the City of Perris considers professional archaeologists to be those who meet the United States Secretary of the Interior's standards for recognition as a professional, including an advanced degree in anthropology, archaeology, or a related field, and the local experience necessary to evaluate the specific project. The professional archaeologist must also meet the minimum criteria for recognition by the Register for Professional Archaeologists (RPA), although membership is not required.

> The Phase I Cultural Resources Assessment submitted for each implementing development or infrastructure project shall have been completed no more than three years prior to the submittal of the application for the subject implementing development project or the start of construction of an implementing infrastructure project.

The PVCCSP EIR includes additional mitigation measures that are relevant to cultural resources. These mitigation measures have been replaced by the City of Perris as reflected in Project mitigation measures MM CR 1 and MM CR 2.

Record Searches and Native American Correspondence

An archeological records search was conducted at the Eastern Information Center at the University of California, Riverside. Although no resources were recorded within the Project boundaries, the records search identified 38 previously recorded cultural resources within a one-mile radius of the Project site. Seventy-six percent of the resources are historic, consisting mainly of structures and sites associated with irrigation or railroad operations. Twenty-one percent of the resources within the one-mile radius are prehistoric—limited bedrock milling features and isolated artifacts. A single site has both prehistoric and historical components.

The National Register of Historic Places Index, the Office of Historic Preservation Archeological Determinations of Eligibility, and the Office of Historic Preservation Directory of Properties in the Historic Property Data File, and historic U.S. Geological Society maps were also reviewed. Cartographic research indicates that a building existed on the southeastern corner of the subject property as early as 1897-1898. The area surrounding the intersection of Ramona Expressway and I-215, including the Project site, appear to have been used primarily for agricultural purposes in historic aerials. By 1951, all structures had ceased to exist and the site has since remained vacant.

Pedestrian Survey

A pedestrian survey of the Project site was conducted on August 3, 2023 by Jean Keller. Ground visibility ranged from 10 to 100 percent due to varying amounts of vegetation across the site. No indications of a possible subsurface cultural deposit were observed.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. Based on the results of the cultural resources assessment conducted for the Project (Keller 2023; Appendix C), while 38 cultural resource properties have been recorded within a one-mile radius of the Project site, no known historical resources are present within the Project site. As there are no structures within the site, no built environment historical resources would be affected by Project construction. No historical resources are known to occur within the Project site and the Project would not cause a substantial adverse change in the significance of a historical resource. No impact would occur and no further evaluation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. As described above, no known cultural resources are present on the Project site. In addition, the majority of resources identified within one mile of the

Project site during the records search are historic period resources rather than archaeological resources. Therefore, no archaeological resources are anticipated to occur within the site and Project construction is not anticipated to disturb archaeological resources. However, ground disturbing activities have the potential to encounter previously undiscovered archaeological resources, which could result in a potentially significant impact. Therefore, Project mitigation measure MM CR 1 shall be implemented to ensure that ground-disturbing activities are monitored by a professional archaeologist and that any unearthed archaeological resources are salvaged and treated appropriately. Project mitigation measure MM CR 1 implements PVCCSP EIR mitigation measures MM Cultural 2 through MM Cultural 4 as subsequently revised by the City of Perris. Implementation of Project mitigation measure MM CR 1 would reduce the impact to a less than significant level and no further evaluation is required.

Project Mitigation Measures

MM CR 1 Prior to the issuance of grading permits, the Project proponent/developer shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeology (U.S. Department of Interior, 2012; Registered Professional Archaeologist preferred). Selection of the Project Archaeologist shall be subject to the approval of the City of Perris Director of Development Services and no ground-disturbing activities shall occur at the site or within the off-site Project improvement areas until the Project Archaeologist has been approved by the City.

The Project Archaeologist shall be responsible for monitoring ground-disturbing activities, including initial vegetation removal, maintaining daily field notes and a photographic record, and for reporting all finds to the developer and the City of Perris in a timely manner. The archaeologist shall be prepared and equipped to record and salvage cultural resources that may be unearthed during ground-disturbing activities and shall be empowered to temporarily halt or divert ground-disturbing equipment to allow time for the recording and removal of the resources.

In the event that archaeological resources are discovered at the Project site, the handling of the discovered resource(s) will differ, depending on the nature of the find. Consistent with California Public Resources Code Section 21083.2(b) and Assembly Bill 52 (Chapter 532, Statutes of 2014), avoidance shall be the preferred method of preservation for Native American/tribal cultural/archaeological resources. However, it is understood that all artifacts, with the exception of human remains and related grave goods or sacred/ceremonial/religious objects, belong to the property owner. The property owner shall commit to the relinquishing and curation of all artifacts identified as being of Native American origin. All artifacts, Native American or otherwise, discovered during the monitoring program shall be recorded and inventoried by the consulting archaeologist.

If any artifacts of Native American origin are discovered, all activities in the immediate vicinity of the find (within a 50-foot radius) shall stop and the Project proponent and Project archaeologist shall notify the City of Perris Planning Division, the Soboba Band of Luiseño Indians, the Rincon Band of Luiseño Indians, the Agua Caliente Band of Cahuilla Indians, and the Pechanga Band of Indians. A designated Native American representative from either the Soboba Band of Luiseño Indians, the Rincon Band of Luiseño Indians, the Agua Caliente Band of Cahuilla Indians, or the Pechanga Band of

Indians shall be retained to assist the Project archaeologist in the significance determination of the Native American as deemed possible. The designated tribal representative will be given ample time to examine the find. The significance of Native American resources shall be evaluated in accordance with the provisions of CEQA and shall consider the religious beliefs, customs, and practices of the tribe. If the find is determined to be of sacred or religious value, the tribal representative will work with the City and consulting archaeologist to protect the resource in accordance with tribal requirements. All analysis will be undertaken in a manner that avoids destruction or other adverse impacts.

In the event that human remains are discovered at the Project site or within the off-site Project improvement areas, mitigation measure MM CR 2 shall immediately apply and all items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling.

Native American artifacts that are relocated/reburied at the Project site shall be subject to a fully executed relocation/reburial agreement with the assisting tribe. This shall include, but not be limited to, an agreement that artifacts shall be reburied on-site and in an area of permanent protection, and that reburial shall not occur until all cataloging and basic recordation have been completed by the consulting archaeologist.

Native American artifacts that cannot be avoided or relocated at the Project site shall be prepared for curation at an accredited curation facility in Riverside County that meets federal standards (per 36 CFR Part 79) and available to archaeologists/researchers for further study. The Project archaeologist shall deliver the Native American artifacts, including title, to the identified curation facility within a reasonable amount of time, along with applicable fees for permanent curation.

Non-Native American artifacts shall be inventoried, assessed, and analyzed for cultural affiliation, personal affiliation (prior ownership), function, and temporal placement. Subsequent to analysis and reporting, these artifacts will be subjected to curation, as deemed appropriate, or returned to the property owner.

Once grading activities have ceased and/or the archaeologist, in consultation with the designated Native American representative, determines that monitoring is no longer warranted, monitoring activities can be discontinued following notification to the City of Perris Planning Division.

A report of findings, including an itemized inventory of artifacts, shall be prepared upon completion of the tasks outlined above. The report shall include all data outlined by the Office of Historic Preservation guidelines, including a conclusion of the significance of all recovered, relocated, and reburied artifacts. A copy of the report shall also be filed with the City of Perris Planning Division, the University of California, Riverside, Eastern Information Center and the tribe(s) involved with the Project.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant with Mitigation Incorporated. The proposed Project site has been historically used for agriculture and has been vacant since at least 1966 according to aerial imagery. No known cemetery

use has occurred at the Project site; therefore, the Project site is not expected to contain human remains, including those interred outside of formal cemeteries. However, in the unlikely event that human remains are discovered during construction, disturbance of the remains would result in a potentially significant impact. Project mitigation measure MM CR 2 would be implemented to require all activities in the vicinity of the remains to occur in compliance with California Health & Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. Project mitigation measure MM CR 2 implements PVCCSP EIR mitigation measure MM Cultural 6, as subsequently revised by the City of Perris, and would reduce impacts to human remains to a less than significant level. No further evaluation is required.

Project Mitigation Measures

MM CR 2 In the event that human remains (or remains that may be human) are discovered at the Project site during ground-disturbing activities, the construction contractors and Project archaeologist, and/or designated Native American tribal representative shall immediately stop all activities within 100 feet of the find. The Project proponent shall then inform the Riverside County Coroner and the City of Perris Planning Division immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b).

If the coroner determines that the remains are of Native American origin, the coroner will notify the Native American Heritage Commission (NAHC), which will identify the Most Likely Descendent (MLD). Despite the affiliation with any Native American tribal representative(s) at the site, the NAHC's identification of the MLD will stand. The MLD shall be granted access to inspect the site of the discovery of the Native American human remains and may recommend to the Project proponent means for treatment or disposition, with appropriate dignity of the human remains and any associated grave goods. The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains will be determined in consultation between the Project proponent and the MLD. In the event that there is disagreement regarding the disposition of the remains, State law will apply and median with the NAHC will make the applicable determination (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

The specific locations of Native American burials and reburials would be proprietary and not disclosed to the general public. The locations will be documented by the consulting archaeologist in conjunction with the various stakeholders and a report of findings shall be filed with the Eastern Information Center.

VI. Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

An Energy Analysis prepared by Urban Crossroads (2023a) was prepared for the proposed Project and is attached to this Initial Study as Appendix D. The findings of this report are incorporated into the following analysis.

Applicable PVCCSP Standards and Guidelines

Section 1.2 (Specific Plan Vision and Objectives) of the PVCCSP encourages increased energy efficiency in building design and the offering of incentives for Leadership in Energy and Environmental Design certification. Section 4.2.4 (Lighting) of the PVCCSP requires lighting standards to be energy efficient. No other PVCCSP Standard and Guidelines are applicable to the analysis of energy.

The proposed Project is required to adhere to PVCCSP EIR Mitigation Measures MM Air 19 and MM Air 20, which would reduce the Project's energy usage. PVCCSP EIR Mitigation Measure MM Air 19 requires implementing development projects to include installation of energy-efficient street lighting throughout project sites. PVCCSP Mitigation Measure MM Air 20 requires each implementing development project to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. See Section III, *Air Quality*, for the full text of these mitigation measures.

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less Than Significant Impact. During construction, the Project would temporarily consume energy in the form of fuels for the operation of construction equipment and vehicles. According to the Energy Analysis prepared for the Project (Urban Crossroads 2023a), the total electricity usage from Project construction related activities are estimated to require approximately 317,943 kilowatt-hours (kWh) of electricity, 68,219 gallons of diesel fuel for off-road equipment, and 25,965 gallons of gasoline and diesel fuel for worker and vendor vehicle trips. Standard methods of earth moving, excavation, building construction, and paving would occur during Project construction. Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed Project would not result in wasteful, inefficient, and unnecessary consumption of energy.

During operation, the Project would consume energy in the forms of electricity for building operations and fuels for equipment use and mobile trips. Based on modeling of the proposed uses, annual building operations activities would result in the consumption of approximately 1,811,842 kWh of electricity and 5,405,396 thousand British Thermal Units of natural gas per year, while mobile trips would consume approximately 2,690,417 gallons of fuel per year. For operational energy use, the Project would be required to meet California Code of Regulations (CCR) Title 24 standards and the California Green Building Standards (CALGreen) Code. CCR Title 24 Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, were established in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. CALGreen (CCR Title 24, Part 11) is a code with mandatory requirements for all nonresidential and residential buildings for which no other state agency has authority to adopt green building standards. CALGreen contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code also requires building commissioning, which is a process for the verification that all building systems, such as heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

Compliance with Title 24 and CALGreen standards as well as PVCCSP design standards and guidelines would ensure the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. While impacts related to energy would not be significant, implementation of PVCCSP EIR mitigation measures MM Air 19 and MM Air 20 would further reduce the Project's energy consumption. Impacts would be less than significant and no further evaluation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. Several levels of government have implemented regulatory programs in response to greenhouse gas emission reduction goals, which consequently serve to increase energy efficiency. Several state agencies, including CARB, the California Energy Commission, the California Public Utilities Commission, CalRecycle, Caltrans, and the Department of Water Resources have developed regulatory and incentive programs that promote energy efficiency. Many of the programs are beyond the ability of any individual project to implement and are implemented at the utility provider or manufacturer level.

Where these programs and policies apply to the Project, such as Title 24 and CALGreen standards for buildings, the Project would not conflict with state or local plans for renewable energy efficiency. The Project would employ standard methods of construction and would comply with regulations that limit idling from diesel-powered equipment (CCR Title 13, Sections 2449 and 2485). The Project would comply with Title 24 energy efficiency standards. While impacts related to energy would not be significant, implementation of PVCCSP EIR mitigation measures MM Air 19 and MM Air 20 would reduce the Project's energy consumption beyond regulatory standards. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant and no further evaluation is required.

VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The discussion below is based on the Preliminary Geotechnical Interpretive Report prepared by Earth Strata Geotechnical Services, Inc. (2023a) for the Project and the report is provided as Appendix E to this Initial Study. A Paleontological Resources Memorandum was also prepared for the Project in accordance with PVCCSP EIR mitigation measure MM Cultural 1 identified in Section V, *Cultural Resources,* above and is provided as Appendix F to this Initial Study (San Diego Natural History Museum 2024).

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

There are no PVCCSP Standard and Guidelines applicable to the analysis of geology and soils. The Geotechnical Engineering Investigation was prepared for the Project in compliance with the following applicable PVCCSP EIR mitigation measure:

MM Geo 1 Concurrent with the City of Perris' review of implementing development projects, the project proponent of the implementing development project shall submit a geotechnical report prepared by a registered geotechnical engineer and a qualified engineering geologist to the City of Perris Public Works/Engineering Administration Division for its review and approval. The geotechnical report shall assess the soil stability within the implementing development project affecting individual lots and building pads, and shall describe the methodology (e.g., overexcavated, backfilled, compaction) being used to implement the project's design.

In addition, PVCCSP EIR mitigation measure MM Cultural 5 provides mitigation for the discovery and protection of paleontological resources. This mitigation measure has been replaced by the City of Perris as reflected in Project mitigation measure MM GR 1.

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

   i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact. The City, like the rest of southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to identify earthquake fault zones along traces of both recently and potentially active major faults. Cities and counties that contain such zones must inform the public regarding the location of these zones, which are usually one-quarter mile or less in width. Proposed development plans within these earthquake fault zones must be accompanied by a geotechnical report prepared by a qualified geologist describing the likelihood of surface rupture. As discussed in the Geotechnical Interpretive Report, the Project site is not within an Alquist-Priolo Fault Zone. The San Jacinto Fault Zone is the nearest Alquist-Priolo Earthquake Fault Zone to the Project site and is located approximately 8.5 miles east of the Project site. Due to this distance, the Project would not be subjected to fault rupture associated with an Alquist-Priolo Fault Zone. No other faults are known to traverse the Project site. No impact associated with fault rupture would occur at the Project site. No further evaluation is required.

   ii. Strong seismic ground shaking?

Less Than Significant Impact. The Project site is located within the seismically active southern California region. Active faults are those faults which have had surface displacement within Holocene times (about the last 11,000 years). The Preliminary Geotechnical Interpretive Report prepared for the Project concluded that since the Project site is located in a seismically active region, ground shaking is likely to occur at the site within the life of the proposed Project. Engineering and construction of the Project would be required to be in conformance with the California Building Code and other applicable

standards. Given conformance with standard engineering practices and design criteria, the Project would not directly or indirectly cause adverse effects related to seismic ground shaking. Impacts associated with seismic ground shaking would be less than significant and no further evaluation is required.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a phenomenon that occurs when soil undergoes transformation from a solid state to a liquefied condition when subjected to high intensity ground shaking. This typically occurs where susceptible soils (particularly the medium sand to silt range) are located over a high groundwater table (within 50 feet of the surface). Affected soils lose all strength during liquefaction and foundation failure can occur. The Preliminary Geotechnical Interpretive Report concluded that the Project site is in an area with low potential for liquefaction hazards due to the lack of groundwater within 50 feet of the ground surface. Also, the Project site is identified in the City's General Plan to be an area of low liquefaction susceptibility (City 2021). Therefore, impacts related to exposing people or structures to seismic-related ground failure, including liquefaction, would be less than significant and no further evaluation is required.

iv. Landslides?

No Impact. The Project site is relatively flat and there are no hillsides or steep topographic features at the site or in surrounding areas. According to the City's General Plan Safety Element, the Project site is not located within an area with high susceptibility to seismically induced landslides and rockfalls (City 2021). As such, there would be no impact related to landslides as a result of the proposed Project and no further evaluation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Soil exposed by construction activities could be subject to erosion if exposed to heavy rain, winds, or other storm events. There is the potential for soil erosion or loss of topsoil during construction activities as the ground is cleared and graded. Compliance with South Coast AQMD Rule 403 (Fugitive Dust) and PVCCSP EIR mitigation measure MM Air 3 would include implementation of soil stabilization measures, such as daily watering, and compliance with the National Pollutant Discharge Elimination System Construction General Permit would include implementation of the City's standard erosion control practices, such as silt fencing, fiber rolls, or sandbags. Further, the California Building Code requires an erosion control and grading plan prior to issuance of a grading permit as a means to minimize soil erosion to the extent practicable during both construction and operation.

Once operational, the Project site would include some impervious or semi-impervious features, that if not designed properly could allow for stormwater to sheet flow and consequently erode soils. However, the preparation of a Water Quality Management Plan (WQMP) would describe the management of stormwater flows so as to not carry soils and sediments. The WQMP (as well as a Storm Water Pollution Prevention Plan [SWPPP]) must be approved by the City Engineer prior to the issuance of grading permits. Additionally, the Project's storm drain and storage facilities would capture storm flows that could otherwise erode loose soils and pump them to a bioswale that would treat runoff. Therefore, compliance with the various permits and regulations related to water quality and erosion would reduce Project impacts to less than significant levels and no mitigation would be required. No further evaluation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. The Project site is not located within an area that is subject to landslides or liquefaction, thus impacts related to landslides and liquefaction would not occur (Earth Strata Geotechnical Services, Inc. 2023a; City 2021). The Perris Valley is susceptible to subsidence in various portions of the region. However, impacts related to lateral spreading, subsidence, or collapse would not be significant because the proposed Project would not be subject to liquefaction, which is associated with the potential for other subsidence events, and would comply with the California Building Code building safety design standards. Therefore, impacts related to geologic instability would be less than significant and no mitigation would be required. No further evaluation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. The majority of soil that underlies the Project site has a very low to low potential for shrinking and swelling (Earth Strata Geotechnical Services, Inc. 2023a). Furthermore, adherence to standard engineering practices contained within the California Building Code would reduce the potential for adverse effects related to soil expansion to occur. Impacts would be less than significant and no further evaluation is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed Project does not include or require the use of septic tanks or alternative wastewater disposal systems. Existing sewer infrastructure existing in the Project site vicinity would serve the Project. No impact would occur and no further evaluation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. According to the City General Plan Conservation Element Figure CN-7 (City 2008), the Project site is located within an area identified as highly sensitive for the discovery of paleontological resources. In accordance with PVCCSP EIR mitigation measure MM Cultural 1, a Paleontological Resources Memorandum was prepared for the Project site. The memorandum confirmed that the Project site is located in an area with a high potential for the discovery of paleontological resources based on the presence of alluvial deposits but identified no documented fossil localities within one mile of the Project site. Based on the ground disturbance necessary to complete the Project, there is potential for the Project to result in significant impacts to unique paleontological resources within Pleistocene-aged alluvial deposits, either at the surface or at depth. Because of the high paleontological sensitivity at the Project site and at the recommendation of the Paleontological Resources Memorandum, Project mitigation measures MM GR 1 and MM GR 2 shall be implemented to reduce potential impacts to less than significant levels. Project mitigation measure MM GR 1 implements PVCCSP EIR mitigation measure MM Cultural 5, as subsequently revised by the City of Perris. Impacts would be less than significant with the incorporated mitigation measures and no further evaluation is required in the EIR.

Project Mitigation Measures

MM GR 1 Prior to the issuance of grading permits, the Project Applicant shall submit to and receive approval from the City, a Paleontological Resource Impact Mitigation Monitoring Program. The Paleontological Resource Impact Mitigation Monitoring Program shall include the provision for a qualified professional paleontologist (or his or her paleontological monitor representative) to be on-site or any Project-related excavations. Selection of the paleontologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the Project site or the off-site Project improvement areas until the paleontologist has been approved by the City.

Monitoring shall be restricted to undisturbed subsurface areas of older Quaternary alluvium, which might be present below the surface. The paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The paleontologist shall also remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall have the power to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens.

Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved. Specimens shall be identified and curated and placed into an accredited repository (such as the Western Science Center or the Riverside Metropolitan Museum) with permanent curation and retrievable storage.

A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to paleontological resources.

MM GR 2 Prior to the start of construction, a paleontological resources worker environmental awareness program training shall be presented to all earthmoving personnel to inform them of the possibility for buried resources and the procedures to follow in the event of fossil discoveries.

VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Applicable PVCCSP Standards and Guidelines

The PVCCSP does not include Standards and Guidelines relevant to the analysis of greenhouse gas emissions. The following mitigation measures from the PVCCSP EIR are applicable to the proposed Project:

MM Air 19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the Project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air 20 Each implementing development project shall implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of greenhouse gas emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of greenhouse gas emissions on the global climate, greenhouse gas emissions from new development could result in significant, cumulative impacts with respect to climate change. Therefore, the potential for a significant greenhouse gas impact is limited to cumulative impacts.

The Project would generate greenhouse gas emissions in the short-term during construction and the long-term during operation. These emissions have the potential to exceed applicable thresholds of significance. Evaluation of this potential impact will be provided in an EIR.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. The State of California, through its Governors and Legislature, has established a comprehensive framework for the substantial reduction of greenhouse gas emissions over the next 40-plus years. The City of Perris has also adopted a Climate Action Plan to meet the requirements of applicable State laws. The proposed Project would result in an increase in greenhouse gas emissions. An evaluation of the Project's consistency with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases will be provided in an EIR.

IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

A Phase I Environmental Site Assessment (ESA) was completed for the Project site by Earth Strata Geotechnical Services, Inc. (2023b; Appendix G) involving records review, site reconnaissance, and interviews. Its findings and recommendations are incorporated into the following analysis.

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

The PVCCSP includes Standards and Guidelines relevant to development with the Airport Influence Zones. These Standards and Guidelines are summarized below and are incorporated as part of the proposed Project and are assumed in the analysis presented in this section.

Airport Overlay Zone (Chapter 12.0 of the PVCCSP)

12.1 Prohibited Uses in Airport Overlay Zones

Zone C1 (Primary Approach/Departure Zone): encompasses most of the projected 60 decibel (dB) community noise equivalent level (CNEL) contour plus immediately adjoining areas. The zone boundary follows geographic features. Accident potential risks are moderate in that aircraft fly at low altitudes over or near the zone. To the south, an area beginning just beyond Nuevo Road—approximately five miles from the runway end—is excluded from the zone. Exposure to noise in this area is greater (above 60 dB CNEL), however, the accident potential risks at this distance from the runway are reduced by the altitude at which aircraft typically fly over the area. Single-event noise levels are potentially disruptive in this zone.

12.1.1 Compatibility with March Air Reserve Base

The PVCC area is located in MARB Airport Influence Zones I and II; therefore, all development within the PVCC area shall comply with measures related to the following:

- Avigation Easement
- Noise Standard
- Land Use and Activities
- Retention and Water Quality Basins
- Notice of Airport in the Vicinity
- Disclosure
- Lighting Plans
- Height Restrictions per Federal Aviation Regulations Part 77
- Form 7460 (Notice of Proposed Construction or Alteration)

The PVCCSP EIR includes mitigation measures for potential impacts related to hazards and hazardous materials. Mitigation measures applicable to the proposed Project are identified below.

MM Haz 2 Prior to the recordation of a final map, issuance of a building permit, or conveyance to an entity exempt from the Subdivision Map Act, whichever occurs first, the landowner shall convey an avigation easement to the MARB/March Inland Port Airport Authority.

MM Haz 3 Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky or above the horizontal plane.

MM Haz 4 The following notice shall be provided to all potential purchasers and tenants:

"This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for

example, noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Profession Code 11010 13(A)."

MM Haz 5 The following uses shall be prohibited:

a. Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

b. Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

c. Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

d. Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

e. All retention and water quality basins shall be designed to dewater within 48 hours of a rainfall event.

MM Haz 6 A minimum of 45 days prior to submittal of an application for a building permit for an implementing development project, the implementing development project applicant shall consult with the City of Perris Planning Department in order to determine whether any implementing project-related vertical structures or construction equipment will encroach into the 100-to-1 imaginary surface surrounding the MARB. If it is determined that there will be an encroachment into the 100-to-1 imaginary surface, the implementing development project applicant shall file a FAA Form 7460-1, Notice of Proposed Construction or Alteration. If FAA determines that the implementing development project would potentially be an obstruction unless reduced to a specified height, the implementing development project applicant and the Perris Planning Division will work with FAA to resolve any adverse effects on aeronautical operations.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Potentially hazardous materials (e.g., fuel, lubricants, and solvents) may be used during construction activities. Hazardous materials used during Project construction would be transported, used, and stored in accordance with state and federal regulations regarding hazardous materials. In addition, materials such as paints, adhesives, solvents, and other substances typically used in construction would be located at the Project site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and

there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to requirements imposed by the United States Environmental Protection Agency, California Department of Toxic Substances Control, South Coast AQMD, and Regional Water Quality Control Board (RWQCB). With mandatory compliance to applicable hazardous materials regulations, the Project would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. Potential impacts related to hazardous materials during construction would be less than significant and no further evaluation is required.

Operation of the proposed Project would involve the use of materials common to urban development that are labeled hazardous (e.g., solvents and commercial cleansers; petroleum products; and pesticides, fertilizers, and other landscape maintenance materials). The proposed self-storage, restaurant, convenience store, and car wash uses are not anticipated to use acutely hazardous materials during operations but each future tenants would be required to comply with applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous materials, as discussed further below.

The Project would result in the routine transport and use of retail fuels, as the Project includes two gas stations. All fuel tanks and dispensers would be equipped with the latest Phase I and Phase II Enhanced Vapor Recovery air pollution control equipment technology as required by CARB regulations and associated Executive Orders. The Phase I Enhanced Vapor Recovery equipment controls the vapors in the return path from the tanks back to the tanker truck during offloading filling operations. Phase I Enhanced Vapor Recovery systems are 98 percent effective in controlling fugitive emissions from escaping into the environment. The Phase II Enhanced Vapor Recovery equipment, which also includes “in-station diagnostics,” controls and monitors the vapors in the return path from the vehicles back to the tanks. Phase II Enhanced Vapor Recovery systems are 95 percent effective in controlling fugitive emissions from escaping into the environment. In addition, CARB siting recommendations within the Air Quality and Land Use Handbook (CARB 2005) suggest sensitive receptors should not be placed within 50 feet of typical gas dispensing facilities and there are no sensitive receptors located within 50 feet of the proposed gas station locations. Therefore, operations associated with the proposed gas station uses would not result in substantial hazards to the public or environment.

Exposure of people or the environment to hazardous materials during operation of the Project may result from (1) the improper handling or use of hazardous substances; (2) transportation accidents; or (3) an unforeseen event (e.g., fire, flood, or earthquake). The severity of any such exposure is dependent upon the type and amount of the hazardous material involved; the timing, location, and nature of the event; and the sensitivity of the individuals or environment affected. The U.S. Department of Transportation prescribes strict regulations for hazardous materials transport, as described in Title 49 of the CFR (i.e., the Hazardous Materials Transportation Act) and implemented by CCR Title 13. It is possible that vendors may transport hazardous materials to and from the Project site and the drivers of the transport vehicles must comply with the Hazardous Materials Transportation Act. Hazardous materials or wastes stored on site would be subject to requirements associated with accumulation time limits, amounts, and proper storage locations and containers, and proper labeling. The amount of materials that would be handled at any one time for the proposed Project operations would be relatively small. Based on compliance with applicable regulations, operation of the Project would not create a significant risk to the public or the environment through the potential routine transport, use,

or disposal of hazardous materials and impacts would be less than significant. No further evaluation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Hazardous materials releases could occur if existing hazardous materials at the Project site would be disturbed by Project construction or operation, or if future Project construction or operation activities involve the handling of substantial amounts of hazardous materials with a potential to result in upset and accident conditions. The Phase I ESA concluded that the Project site has historically been undeveloped with the exception of sporadic single-family residences and dry farming. No Recognized Environmental Conditions were documented or identified in the Phase I ESA related to potentially hazardous materials (Earth Strata Geotechnical Services, Inc. 2023b). Therefore, PVCCSP EIR mitigation measure MM Haz 7 is not required for the proposed Project.

During the temporary, short-term construction period, there is the possibility of accidental release of hazardous substances such as spilling of hydraulic fluid or diesel fuel associated with construction equipment maintenance. The level of risk associated with the accidental release of these hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials. The construction contractor would be required to use standard construction controls and safety procedures to avoid or minimize the potential for accidental release of such substances into the environment. Further, Project operations would involve standard commercial activities and while it is possible that hazardous materials could be used by a future occupant's daily operations, these operations would be required to occur in compliance with all applicable local, State, and federal regulations related to the transport, handling, and usage of hazardous materials. The delivery of fuels for the proposed gas stations would occur in compliance with applicable regulations intended to prevent accidents during transport and delivery of gasoline and diesel fuels. In addition, as described above, fueling stations would be constructed in compliance with CARB requirements, including the installation of Phase I and Phase II Enhanced Vapor Recovery air pollution control equipment technology. Therefore, the impact of the proposed Project with respect to exposing the public or the environment to hazardous materials through upset and accident conditions would be less than significant and no further evaluation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The Project site is not located within one-quarter mile of a school, as the schools nearest to the Project site are approximately 0.36 mile south of the Project site (Val Verde Academy, Val Verde High School, and the Val Verde Regional Learning Center). Furthermore, the use of hazardous materials at the Project site would be in accordance with applicable standards and regulations. Therefore, no impact related to the handling of hazardous materials within one-quarter mile of a school would occur and no further evaluation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The State Water Resources Control Board GeoTracker database (2023) and the Department of Toxic Substances Control EnviroStor database (2023) are databases compiled pursuant to

Government Code Section 65962.5 (Cortese List) requirements and were searched for hazardous materials sites within and surrounding the Project site. The Phase I ESA identified one EnviroStor record located over 0.25 mile south of the Project site; based on distance and direction, the site would not be considered an environmental concern to the Project. The Phase I ESA also completed a GeoTracker search which revealed no incidents at or in the immediate vicinity of the Project site. The Project site is not located on or within 1,000 feet of an active hazardous materials site according to these databases. Therefore, no impact related to hazardous materials sites is anticipated and no further evaluation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the Project site?

Less Than Significant Impact. The nearest airport to the Project site is MARB/IPA, located approximately one mile to the north. The Perris Valley Airport is located approximately 5.3 miles south of the Project site and the Project site is not located within the Airport Influence Area Boundary for this airport (Riverside County ALUC 2011). However, the proposed Project site is located within the ALUCP area for MARB/IPA (Riverside County ALUC 2014), the 2018 AICUZ Study (MARB 2018), and the PVCCSP AOZ (County of Riverside 2023). The Project site is within Zone C1 per the MARB/IPA ALUCP. The Project site is not within an Accidental Potential Zone.

Within Zone C1, aircrafts are generally greater than 2,000 feet above runway elevation on arrival and generally greater than 3,000 feet above runway elevation on departure. Developments within this zone would be located beneath or adjacent to low altitude overflight corridors, which have the potential to generate noise at a level that could be potentially disruptive. The Project site is outside of the 60 dB CNEL noise contours for MARB/IPA (MARB 2018). Noise impacts associated with aircraft activity are evaluated further in Section XIII, *Noise*, and would not be considered significant for the proposed land uses.

The proposed land uses do not include any prohibited uses of the MARB/IPA ALUCP for Zone C1, such as children's schools, libraries, and day care centers. Per the MARB/IPA ALUCP, aboveground storage of more than 6,000 gallons of hazardous or flammable materials per tank is discouraged in Zone C1, and discouraged uses should generally not be permitted unless no feasible alternative is available. The two gas stations proposed for the Project would contain underground storage facilities and are, therefore, not considered a discouraged use for Zone C1. The Riverside County ALUC reviewed the Project and confirmed the consistency of the proposed Project with the ALUCP in a hearing on July 11, 2024 (Riverside County ALUC 2024). Typical conditions were placed on the Project as a result of the ALUC review and include light shielding, tenant notification, and ALUC notification requirements as well as prohibition of specific uses not proposed by the Project. As the Project does not include discouraged uses within Zone C1, impacts associated with aircraft safety would be less than significant. The proposed Project would be required to comply with PVCCSP EIR mitigation measures MM Haz 2 through MM Haz 5, which are consistent with the types of conditions provided by ALUC, to avoid potential impacts associated with MARB/IPA operations. Therefore, impacts related to noise and hazards from aircraft operations would be less than significant and no Project-specific mitigation would be required. No further analysis is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The City participates in the Riverside County Multiagency Multi-Hazard Functional Plan, which outlines requirements for emergency access and standards for emergency responses. Access to the Project site would be via Webster Avenue and Ramona Expressway. During construction of the Project, heavy construction vehicles could interfere with emergency response to the site or emergency evacuation procedures in the event of an emergency (e.g., vehicles traveling behind the slow-moving truck). However, such delays would be brief and infrequent. Moreover, as required in the City's Municipal Code Section 10.12.100, no street shall be closed or partially obstructed, or detours established, without approval of the City's traffic engineer. The Project would provide driveways and internal circulation elements consistent with applicable policies related to emergency access. As a result, the Project's potential impacts would be less than significant and no further analysis is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. According to the Safety Element of the City's General Plan, wildfires typically pose minimal threat to people and buildings in urban areas but increasing human encroachment into natural areas increases the likelihood of bodily harm or structural damage. This encroachment occurs in areas called the wildland-urban interface, which is considered an area within the high and very high fire hazard severity zone, as defined by Cal FIRE. The City of Perris General Plan Safety Element Wildfire Hazards map shows that the Project site is not located in a Very High Fire Hazard Severity Zone (City 2021). Therefore, the proposed Project would not expose people or structures to wildland fires. No impacts associated with wildland fires would occur and no mitigation would be required. No further analysis is required.

X. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?	☐	☐	☒	☐
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?	☐	☐	☒	☐
	iv. Impede or redirect flood flows?	☐	☐	☒	☐
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The discussion below is based on the Preliminary Drainage Reports prepared by United Engineering Group (2023a; 2023b) for the Project and provided as Appendix H to this Initial Study.

Applicable PVCCSP Standards and Guidelines

The PVCCSP includes Standards and Guidelines relevant to hydrology and water quality. A summary of the applicable Standards and Guidelines is provided below and compliance with these Standards and Guidelines is incorporated into the proposed Project design and therefore part of the Project analyzed in this section. There are no mitigation measures related to hydrology or water quality included in the PVCCSP EIR.

On-Site Design Standards and Guidelines (Chapter 4.0 of the PVCCSP)

4.2 On-Site Design Standards and Guidelines

Water Quality Management Plan. Most developments are required to implement a Water Quality Management Plan (WQMP) in accordance with the most recently adopted Riverside County Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (Board Order R8-2010-0033). Approval by the City of a WQMP plan requires submittal of a complete document with supporting data which includes at a minimum, a site “Post-Construction Best Management Practice (BMP) Plan,” and treatment control facility sizing calculations. Site design, based on Low Impact Design elements and Source Control BMPs, must be incorporated into the site design. If these two types of BMPs do not sufficiently manage hydromodification or treat expected pollutants, treatment control facilities must be implemented in order to assure proper flow management and pollutant treatment. Treatment control BMPs are in accordance with Riverside County Storm Water Best Management Practice Handbook. The Regional Water Quality Control Board (RWQCB) continuously updates impairments as studies are completed, the most current version of impairment data should be reviewed prior to preparation of Preliminary or Final WQMP document.

Commercial Design Standards and Guidelines (Chapter 7.0 of the PVCCSP)

7.2.1.7 Water Quality Site Design

Runoff From Truck Docks. Runoff from truck docks must be treated for pollutants of concern prior to discharge from the site.

Truck-wells. Truck-wells are discouraged due to potential clogging of sump-condition storm drain inlets. If used, run-off-needs to run through landscape before discharging from site.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The Santa Ana RWQCB sets water quality standards for all ground and surface waters within the Project's region. Water quality standards are defined under the Clean Water Act to include both the beneficial uses of specific water bodies and the levels of water quality that must be met and maintained to protect those water quality objectives. The proposed Project site is located within the Santa Ana Watershed and San Jacinto Sub-Watershed. Runoff from the PVCC planning area, including the Project site, discharges into the Perris Valley Storm Channel, which is tributary to the San Jacinto River, Canyon Lake, and Lake Elsinore.

Construction of the proposed Project would include grading, which may have the potential to release pollutants (e.g., oil from construction equipment, cleaning solvents, paint) and silt off-site which could impact water quality. As required under the NPDES, a SWPPP would be created specifically for construction of the proposed Project. The plan would address erosion control measures that would be implemented to avoid or minimize erosion impacts to exposed soil associated with construction activities. The SWPPP would include a program of BMPs to provide erosion and sediment control and reduce potential impacts to water quality that may result from construction activities. BMPs would include providing gravel bags and silt fences where applicable. Through compliance with the regulatory requirements of the NPDES Construction General Permit and on-site drainage facilities, the Project would not violate water quality standards or waste discharge requirements during construction.

During operation, the discharge of minor amounts of fuels or other pollutants associated with automobiles into storm drains during rain events may occur. The Project would include an underground stormwater basin and on-site storm drains in compliance with City design standards. Furthermore, the Project developer would prepare a WQMP to illustrate how low impact development BMPs have been incorporated into Project construction and design. The WQMP would incorporate BMPs in accordance with the City's BMP Design Manual to control erosion and protect the quality of surface water runoff.

Development of the proposed Project would add impervious surfaces across the undeveloped site. By increasing the amount of impervious surfaces on the site, less water would percolate into the ground and more surface runoff would be generated. Paved areas would collect dust, soil and other impurities that would combine with surface runoff during rainfall events. The Project would be required to comply with the NPDES permit and Waste Discharge Requirements for Riverside County, of which the City is a co-permittee. The City is responsible for discharges into its MS4 facilities to the extent of its legal authority and, as required by federal regulations, the City shall control discharges of pollutants into the MS4 to the maximum extent practicable. The proposed Project meets the threshold of a Priority Development Project since it involves the creation of more than 10,000 square feet of impervious surface and is required to prepare a WQMP that satisfies City and permit requirements.

The proposed Project would incorporate site design, source control, and treatment control BMPs to address storm water runoff during operation and would implement BMPs during construction in accordance with a SWPPP. Thus, through the BMPs and compliance with existing regulations such as the implementation of the WQMP, the proposed Project would not violate water quality standards or waste discharge requirements. Therefore, potential impacts would be less than significant and no further evaluation is required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The Project site is located within the San Jacinto Groundwater Basin, which underlies the valleys of San Jacinto, Perris, Moreno Valley, and Menifee in western Riverside County. Natural recharge to the San Jacinto groundwater basin is primarily from percolation of flows into the San Jacinto River and its tributary streams, with percolation of water stored in Lake Perris as an additional source of recharge.

While the majority of the site would become impermeable after development, Project design features and BMPs such as the use of impervious or semi-pervious materials and the use of landscaping would facilitate some groundwater recharge and percolation. In addition, due to the proposed Project site's small size in relationship to the total size of the San Jacinto Groundwater Basin (approximately 188,000 acres), there would not be a substantial effect upon groundwater recharge within the groundwater basin. Furthermore, the Project would rely on domestic water supply, would not require the use of groundwater sources, and would not substantially deplete groundwater supplies. Therefore, potential impacts would be less than significant and no further evaluation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

iv. Impede or redirect flood flows?

Less Than Significant Impact. There are no streams or rivers currently mapped within or adjacent to the Project site. Stormwater runoff generally flows from northwest to southeast within the western site and southwest to northeast on eastern site. Off-site flows enter the site along the western property line from the undeveloped land to the west and at the southwest corner of the site from an earthen channel that conveys runoff from the onramp easterly along the north side of Ramona Expressway. Flows continue easterly in the earthen channel before entering an existing crossing of Webster Avenue to meet the Line E regional storm drain system, which ultimately flows into the Riverside County Flood Control and Water Conservation District's existing Perris Valley Storm Drain Channel.

Due to the increase in impervious surfaces that would be constructed on the site, the Project has been designed with underground storage to offset the difference in runoff volume between the developed and pre-developed condition. On-site site soils have tested infiltration potential less than the required level, so bio swales are proposed along the southern portion of the site to provide water quality treatment. De-watering of the underground storage would be provided by a pumping system. In addition to the underground storage, a system of storm drains is proposed to collect and route Project site runoff to outlet at the southeast corner of the Project site. Since the on-site runoff would be accommodated by on-site storage facilities and would utilize an existing channel and storm drain facility, the proposed Project would not substantially alter the existing drainage pattern of the site or area, in a manner which would result in substantial erosion or siltation, flooding, exceedance of stormwater drainage capacity, or redirection of flood flows. Thus, impacts would be less than significant and no further analysis is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

No Impact. According to the Safety Element of the City General Plan, the Project site is not located within a Special Flood Hazard Area Inundated by 100 Year Flood Zone or within a Dam Inundation Area. Additionally, the Federal Emergency Management Agency Flood Map Service Center identifies the Project site as outside of a special flood hazard area (Federal Emergency Management Agency 2008). Therefore, no impacts related to flood hazards would occur and no further analysis is required.

Tsunamis are usually caused by displacement of the ocean flood causing large waves and are typically generated by seismic activity. The proposed Project site is located approximately 35 miles from the Pacific Ocean; therefore, risks from a tsunami are not present for the Project site. A seiche is a standing wave in an enclosed or partly enclosed body of water. Seiches are normally caused by earthquake activity, and can affect harbors, bays, lakes, rivers, and canals. The nearest enclosed body of water, Lake Perris, is approximately 3 miles away, which is too far to result in inundation at the Project site during a seiche event. No impact related to the release of pollutants due to tsunamis or seiches would occur. No further analysis is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. Implementation of the Project would not have a substantial effect on groundwater recharge within the overlapping Perris North Groundwater Management Zone of the West San Jacinto Groundwater Sub-basin. Under the Sustainable Groundwater Management Act passed in 2014 (California Water Code Section 10729[d]), each high and medium priority basin, as identified by the California Department of Water Resources, is required to have a Groundwater Sustainability Agency that will be responsible for groundwater management and development of a Groundwater Sustainability Plan (California Department of Water Resources 2020).

The San Jacinto Groundwater Basin is a high priority basin (California Department of Water Resources 2020). The EMWD Board of Directors is the Groundwater Sustainability Agency for the West San Jacinto Groundwater Sub-basin and is responsible for development and implementation of a Groundwater Sustainability Plan. The EMWD Board of Directors was required to develop a Groundwater Sustainability Plan by 2022 and is required to implement the Groundwater Sustainability Plan by 2042. A draft Groundwater Sustainability Plan was prepared in April 2021 and the final Groundwater Sustainability Plan was approved by the Department of Water Resources in 2023. The Groundwater

Sustainability Plan documents the basin conditions and basin management will be based on measurable objectives and minimum thresholds defined to prevent significant and unreasonable impacts to the sustainability indicators defined in the Groundwater Sustainability Plan. The Project would not conflict with the plan because groundwater would not be used to serve the Project. The Project would be supplied with imported, potable water and recycled water for non-potable water demands and the Project site is not within a groundwater recharge area. Therefore, the Project would not conflict with or obstruct implementation of a sustainable groundwater management plan and impacts would be less than significant. No further analysis is required.

The water quality control plan applicable to the Project is the Santa Ana RWQCB Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), which designates beneficial uses and water quality objectives for all the ground and surface waters in the region. At the Project level, compliance with RWQCB permits and objectives through implementation of a SWPPP and WQMP prepared pursuant to RWQCB requirements would ensure the Project does not conflict with or obstruct implementation of the applicable water quality management plan. Potential impacts would be less than significant and no further analysis is required.

XI. Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Applicable PVCCSP Standards and Guidelines

Land Use Plan (Chapter 2.0, PVCCSP)

2.1 Perris Valley Commerce Center Land Use Designations

Commercial (C): This zoning designation provides for retail, professional office, and service-oriented business activities which serve the entire City, as well as the surrounding neighborhoods. This zone combines the General Plan Land Use designation of Community Commercial and Commercial Neighborhood.

a) Physically divide an established community?

No Impact. The Project would result in the development of an existing vacant lot that is surrounded by development and roadway facilities on all sides. The Project does not include any linear features that would extend outside of the Project site and physically divide an established community. Therefore, no impact would occur and no further evaluation is required.

b) Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed Project site is located within the City and within the PVCC planning area. Thus, land use is guided by both the Perris General Plan and the PVCCSP. The proposed Specific Plan Amendment would allow the development of a self-storage facility within the Commercial land use designation per the PVCCSP. Therefore, with approval of the proposed Specific Plan Amendment, the Project development would be consistent with the land use and zoning designations for the site and would comply with other applicable PVCCSP standards and guidelines, as identified throughout this Initial Study.

The consistency of the Project with the applicable policies from the City General Plan that have been adopted for the purpose of avoiding or mitigating an environmental effect is evaluated in Table 3, *General Plan Consistency Analysis*. As shown, the Project would be consistent with the applicable policies of the City's General Plan. Therefore, potential impacts would be less than significant and no further analysis is required.

Table 3
GENERAL PLAN CONSISTENCY ANALYSIS

Policy No.	Policy	Statement of Consistency
Land Use Element		
Policy II.A	Require new development to pay its full, fair share of infrastructure costs.	The Project applicant would pay applicable development impact fees pursuant to Perris Municipal Code Section 19.68.020 to mitigate the cost of public facilities to support new development. Thus, the Project would be consistent with Land Use Policy II.A.
Policy II.B	Require new development to include school facilities or pay school impact fees, where appropriate.	The Project applicant would be required to pay school impact fees, as set by the Val Verde Unified School District at the time of payment. Therefore, the Project would be consistent with Land Use Policy II.B.
Policy III.A	Accommodate diversity in the local economy.	The PVCCSP was adopted by the City to ensure quality and organized development within the Project area vicinity. The proposed Project would include commercial uses consistent with the existing land use designation with approval of the requested Specific Plan Amendment. These uses would be consistent with the surrounding land use pattern but would provide additional commercial amenities that are lacking in the Project area. The Project would assist the City in achieving its goal of building out the PVCC planning area and generating revenue and land use diversity for the local economy. Therefore, the proposed Project would be consistent with Land Use Policy III.A.

Policy No.	Policy	Statement of Consistency
Policy V.A	Restrict development in areas at risk of damage due to disasters.	The proposed Project site is not located within an area of significant risk due to human or natural disasters; therefore, although it would be the responsibility of the City to determine whether development restrictions should be in place, the Project would be consistent with Land Use Policy V.A.
Circulation Element		
Policy II.B	Maintain the existing transportation network while providing for future expansion and improvement based on travel demand, and the development of alternative travel modes.	The proposed Project would not revise the existing transportation network. PVCCSP EIR mitigation measures would be implemented along with the proposed circulation improvements. Additionally, the Project applicant would participate in payment of the Project's fair share of traffic mitigation fees. Further, installation of sidewalks and bike racks at the Project site would support alternative travel modes such that the Project would be consistent with Circulation Policy II.B.
Policy III.A	Implement a transportation system that accommodates and is integrated with new and existing development and is consistent with financing capabilities.	The Project applicant proposes transportation improvements consistent with the increased trips that would be related to the proposed development. The applicant would be responsible for financing the proposed improvements. Therefore, the Project would be consistent with Circulation Policy III.A
Conservation Element		
Policy II.A	Comply with state and federal regulations to ensure protection and preservation of significant biological resources.	The proposed Project would be consistent with the MSHCP given the lack of sensitive habitat on the site. In addition, the Project would be required to pay applicable MSHCP fees and implement the mitigation measure identified in Section IV, *Biological Resources*. Therefore, the Project would be consistent with Conservation Policy II.A.
Policy III.A	Review all public and private development and construction projects and any other land use plans or activities within the MSHCP area, in accordance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP.	The Project site is not within an MSCHP Criteria Cell or the Mead Valley Area Plan of the Western Riverside MSCHP. In accordance with the MSHCP, the proposed Project was reviewed for consistency with the MSHCP in the MSHCP Consistency Analysis (Appendix A). The Project would be consistent with the requirements set forth in the MSHCP and Conservation Policy III.A

Policy No.	Policy	Statement of Consistency
Policy IV.A	Comply with State and Federal regulations and ensure preservation of the significant historical, archaeological, and paleontological resources.	As detailed in Sections V, *Cultural Resources* and VII, *Geology and Soils*, the Project would comply with applicable regulations and implement mitigation measures to ensure preservation of significant historical, archaeological, and paleontological resources. Therefore, the Project would be consistent with Conservation Policy IV.A.
Policy V.A	Coordinate land-planning efforts with local water purveyors.	The EMWD is the local water purveyor and has been involved with utility planning for the proposed land uses at the Project site. Water-related improvements are detailed in Section 1.5, Project Components. The Project would be consistent with Conservation Policy V.A.
Policy VI.A	Comply with requirements of the National Pollutant Discharge Elimination System (NPDES).	As required under the NPDES, an SWPPP would be created for construction of the proposed Project. The Project would also be required to comply with the City's NPDES permit for stormwater discharges in accordance with the WQMP during operation. The Project would be consistent with Conservation Policy VI.A.
Policy VII.A	Preserve significant hillsides and rock outcroppings in the planning areas.	The Project site is flat with no significant hillsides or rock outcroppings. The Project would be consistent with Conservation Policy VII.A.
Policy VIII.A	Adopt and maintain development regulations that encourage water and resource conservation.	The Project would be subject to local development regulations designed to encourage water and resource conservation. For example, proposed plant materials would have either low or moderate water needs. The Project would therefore be consistent with Conservation Policy VIII.A.
Policy VIII.B	Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects.	The proposed Project would be required to comply with applicable local, State, and federal solid waste management regulations. For example, the Project must develop a collection program for recyclables and comply with practices enacted by the City under the California Integrated Waste Management Act of 1989 (Assembly Bill 939). The Project would be consistent with Conservation Policy VIII.B.
Policy X.B	Encourage the use of trees within Project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.	The Project is proposed to provide approximately 23 percent landscape cover within the western site and approximately 10 percent landscape cover within the eastern site. This would include a variety of trees throughout the site and parking areas. The Project would be consistent with Conservation Policy X.B.

Policy No.	Policy	Statement of Consistency
Policy X.C	Encourage strategic shape and placement of new structures within new commercial and industrial projects.	The Project would site commercial land uses within a vacant site and would promote energy conservation by taking advantage of natural lighting and ventilation, sunlight, and shade, as appropriate, based on site conditions. The Project would be consistent with Conservation Policy X.C.
Noise Element		
Policy I.A	The State of California Noise/Land Use Compatibility Criteria shall be use in determining land use compatibility for new development.	The Project's noise study (Appendix I) indicates traffic noise levels from Ramona Expressway would be 70 CNEL at 508 feet. Therefore, the Project would have buildings located within the conditionally acceptable contour for Commercial land uses and would require evaluation of necessary insulation features. The provision of air supply systems to maintain closed windows is anticipated to sufficiently reduce interior noise levels. Therefore, the Project would be consistent with Noise Policy I.A.
Policy III.A	Mitigate existing and future noise impacts resulting from train movement.	The Project site is across I-215 from the Metrolink 91-Perris Valley Line but does not include sensitive land uses and would provide sufficient noise insulation features to reduce interior noise within Project buildings. The Project would be consistent with Noise Policy III.A.
Policy V.A	New large scale commercial or industrial facilities located within 160 feet of sensitive land uses shall mitigate noise impacts to attain an acceptable level as required by the State of California Noise/Land Use Compatibility Criteria.	As the Project is a commercial land use within 160 feet of a sensitive land use (residences), the Project's noise study (Appendix I) considered whether the Project would generate noise in excess of 60 CNEL at the nearby residences to the north and southeast, and schools to the south. Operation of the commercial site would not exceed this threshold. The Project would comply with Noise Policy V.A.
Safety Element		
Policy S-2.1	Require road upgrades as part of new developments/major remodels to ensure adequate evacuation and emergency vehicle access. Limit improvements for existing building sites to property frontages.	The Project applicant proposes multiple road upgrades to accommodate the six Project driveways, as described in Section 1.5. Stop controls would be installed and intersections would be constructed in accordance with the specifications of the Project's Traffic Analysis included as Appendix J. The Project would be consistent with Safety Policy S-2.1.

Policy No.	Policy	Statement of Consistency
Policy S-2.2	Require new development or major remodels include backbone infrastructure master plans substantially consistent with the provisions of "Infrastructure Concept Plans" in the Land Use Element.	The Project applicant proposes multiple road upgrades to accommodate the four Project driveways. Stop controls and traffic lights would be installed and intersections would be constructed in accordance with the specifications of the Project's Traffic Analysis included as Appendix J. The Project would be consistent with Safety Policy S-2.1.
Policy S-2.5	Require all new developments, redevelopments, and major remodels to provide adequate ingress/egress, including at least two points of access for sites, neighborhoods, and/or subdivisions.	The Project would include six driveways of standard size to accommodate passenger cars and trucks. Based on the Project's Traffic Analysis (Appendix J), these driveways and associated roadway improvements would provide adequate ingress/egress. The Project would be consistent with Safety Policy S-2.5.
Policy S-4.1	Restrict future development in areas of high flood hazard potential until it can be shown that risk is or can be mitigated.	The Project site is not located in an area of high flood hazard according to the Safety Element (City 2021). Therefore, the Project would be consistent with Safety Policy S-4.1
Policy S-4.3	Require new development projects and major remodels to control stormwater run- off on site.	Underground storage basins would capture stormwater runoff from the site and pump it to the proposed bioswale for treatment. After treatment, runoff would drain into an existing 48-inch storm drain at the southeast corner of the Project site and contribute flows to the Line E regional stormwater system. The Project's WQMP and SWPPP would address the treatment of runoff and must be approved by the City Engineer prior to the issuance of grading permits. Therefore, the Project would be consistent with Safety Policy S-4.3.
Policy S-4.4	Require flood mitigation plans for all proposed projects in the 100-year floodplain (Flood Zone A and Flood Zone AE).	The Project site is not within the 100-year floodplain (Federal Emergency Management Agency 2008) and, therefore, the Project would be consistent with Safety Policy S-4.4.
Policy S-4.5	Ensure areas downstream of dams within the City are aware of the hazard potential and educated on the necessary steps to prepare and respond to these risks.	The Project site is not within the Dam Inundation Zone for Lake Perris and is not at significant risk in the event of a dam failure. The Project would be therefore consistent with Safety Policy S-4.5.
Policy S-5.3	Promote new development and redevelopment in areas of the City outside the VHFHSZ and allow for the transfer of development rights into lower-risk areas, if feasible.	The Project site is outside of the Very High Fire Hazard Severity Zone (VHFHSZ) and therefore in a low-risk area (City 2021). No transfer of development rights would be necessary to decrease fire risk associated with the Project given that development is proposed outside of the VHFHSZ. The Project would be consistent with Safety Policy S-5.3.

Policy No.	Policy	Statement of Consistency
Policy S-5.6	All developments throughout the City Zones are required to provide adequate circulation capacity, including connections to at least two roadways for evacuation.	The Project would provide adequate circulation capacity and would include connections to both of the roadways adjacent to the Project site. The Project would be therefore consistent with Safety Policy S-5.6.
Policy S-5.10	Ensure that existing and new developments have adequate water supplies and conveyance capacity to meet daily demands and firefighting requirements.	Project utilities have been designed to ensure the development has adequate supplies for both daily demands and firefighting requirements in compliance with Safety Policy S-5.10.
Policy S-6.1	Ensure new development and redevelopments comply with the development requirements of the AICUZ Land Use Compatibility Guidelines and ALUP Airport Influence Area for March Air Reserve Base.	The Project requires review by the Riverside County ALUC to ensure consistency with the applicable plans and development requirements related to the MARB/IPA. ALUC has reviewed the Project and applied necessary conditions to ensure adherence to the applicable policies. Therefore, the Project would be consistent with Safety Policy S-6.1.
Policy S-6.2	Effectively coordinate with March Air Reserve Base, Perris Valley Airport, and the March Inland Port Airport Authority on development within its influence areas.	As stated above, the Project applicant has coordinated review of the Project with the Riverside County ALUC, which includes notification of the March Inland Port Airport Authority of the ALUC review. The Project would be consistent with Safety Policy S-6.2.
Policy S-6.3	Effectively coordinate with March Air Reserve Base and Perris Valley Airport on development within its influence areas.	As stated above, the Project applicant has coordinated review of the Project with ALUC and the Project would be consistent with Safety Policy S-6.3.
Policy S-7.1	Require all development to provide adequate protection from damage associated with seismic incidents.	Based on the Project's distance from active faults and other geologic characteristics, there are minimal seismic risks associated with the Project site (City 2021). Engineering and construction of the Project would be required to be in conformance with the California Building Code and other applicable standards to protect from seismically induced damage. The Project would be consistent with Safety Policy S-7.1.
Policy S-7.2	Require geological and geotechnical investigations by State-licensed professionals in areas with potential for seismic and geologic hazards as part of the environmental and development review and approval process.	A Preliminary Geotechnical Interpretive Report was prepared by Earth Strata Geotechnical Services, Inc. and a registered engineer. The report is attached to this Initial Study as Appendix E. The Project would be consistent with Safety Policy S-7.2.
Policy S-8.2	Ensure that the transport, use, storage, and disposal of hazardous materials occur in a responsible manner that protects public health and safety.	The proposed Project is required to comply with the applicable federal, state, and local regulations related to hazardous materials, which would ensure the protection of the public. The Project would be consistent with Safety Policy S-8.2.

Policy No.	Policy	Statement of Consistency
Healthy Community Element		
Policy HC 1.3	Improve safety and the perception of safety by requiring adequate lighting, street visibility, and defensible space.	Proposed lighting is anticipated to include a combination of operational, street, and security lighting on building exteriors and in parking areas that would conform to the Title 24 and City standards that regulate outdoor lighting. The Project site is not within a VHFHSZ and is not adjacent to wildlands that require excess defensible space. No landscaping would be installed which would exacerbate fire risks. The Project would comply with Policy HC 1.3.
Policy HC 4.2	Foster the creation of public plazas with seating, art, and play features near shopping and business districts	In compliance with the PVCCSP Commercial Design standards, retail and food service areas over 10,000 square feet shall provide outdoor seating areas for patrons. The proposed Project would comply with the design standards and would therefore be consistent with Policy HC 4.2.
Policy HC 6.3	Promote measures that will be effective in reducing emissions during construction activities. • Perris will ensure that construction activities follow existing SCAQMD rules and regulations • All construction equipment for public and private projects will also comply with CARB's vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD • Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures. among others. Appropriate control measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded	Construction activities would follow applicable South Coast AQMD and CARB rules and regulations, and PVCCSP EIR mitigation measures for construction emissions. The Project would comply with Policy HC 6.3.

Policy No.	Policy	Statement of Consistency
Environmental Justice Element		
Goal 3.1 Policy	Continue to ensure new development is compatible with the surrounding uses by co-locating compatible uses and using physical barriers, geographic features, roadways or other infrastructure to separate less compatible uses. When this is not possible, impacts may be mitigated using: noise barriers, building insulation, sound buffers, traffic diversion.	The proposed Project is consistent with surrounding commercial and industrial land uses according to the PVCCSP. The residential land uses to the northeast are consistent with the PVCCSP and would be separated from the Project by Webster Avenue. The Project would be consistent with this Environmental Justice policy.
Goal 3.1 Policy	Support identification, clean-up and remediation of local toxic sites through the development review process.	A Phase I ESA was completed for the Project and is attached to this Initial Study as Appendix G. No Recognized Environmental Conditions were documented or identified in the Phase I ESA related to potentially hazardous materials. The Project would be consistent with this Environmental Justice policy.
Goal 5.1 Policy	Require developers to provide pedestrian and bike friendly infrastructure in alignment with the vision set in the City's Active Transportation Plan or active transportation in-lieu fee to fund active mobility projects.	The Project developer would construct or fund the appropriate pedestrian and bicycle infrastructure according to City policy. The Project would be consistent with this Environmental Justice policy.
Goal 6.2 Policy	Discourage development in proximity to sensitive land uses (e.g., schools, hospitals, homes, and long-term care facilities) near source point pollution sources that impact health, including freeways and hazardous waste sites.	The Project site is in proximity to single-family residences, schools, and warehouses. However, the proposed gas station land use (a point pollution source) would be located over 50 feet from the nearest residences as recommended by CARB (2005). The new fuel facility would require authority to construct and permit to operate approval from the South Coast AQMD, which would review the facility design and location for compliance with South Coast AQMD standards for criteria pollutants and air quality. The Project would be consistent with this Environmental Justice Policy.

XII. Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Applicable PVCCSP Standards and Guidelines

There are no Standards and Guidelines or mitigation measures related to mineral resources included in the PVCCSP or associated PVCCSP EIR.

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Department of Conservation classifies the availability of mineral resources in a region into one of four mineral resource zone (MRZ) categories: MRZ 1 for no mineral resources, MRZ 2 for significant resource areas where the quality and quantity of mineral resources is known, MRZ 3 for significant resource areas where the quality and quantity of mineral resources is unknown, and MRZ 4 for areas with no information available. According to the City of Perris General Plan Conservation Element, the Department of Conservation is primarily interested in the preservation of significant resources in MRZ 2 regions. The land within the City, including the Project site, is classified as MRZ 3 and MRZ 4, which are not considered to be significant mineral resource areas (City 2005). Therefore, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impacts to mineral resources would occur. No further evaluation is required.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As stated above in Initial Study Checklist item XII.a), the General Plan Conservation Element does not consider the Project site to be a significant mineral resource area. Additionally, the Project site is not used for mineral extraction and is not known as a locally important mineral resource recovery site. Further, the Project site is not delineated on any plan for mineral resource recovery uses. No impacts to mineral resource availability would occur and no further evaluation is required.

XIII. Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☒	☐

The discussion below is based on the Noise and Vibration Analysis prepared by Urban Crossroads (2023b) for the Project and the report is provided as Appendix I to this Initial Study.

Applicable PVCCSP Standards and Guidelines

The PVCCSP Standards and Guidelines relevant to the analysis of noise impacts presented in this Initial Study and summarized below are incorporated as part of the proposed Project and assumed in the analysis presented in this section.

The following PVCCSP EIR mitigation measures are applicable to the proposed Project and included in the analysis.

MM Noise 1 During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers consistent with manufacturer's standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.

MM Noise 2 During construction, stationary construction equipment, stockpiling and vehicle staging areas will be placed a minimum of 446 feet away from the closet sensitive receptor.

MM Noise 3 No combustion-powered equipment, such as pumps or generators, shall be allowed to operate within 446 feet of any occupied residence unless the equipment is surrounded by a noise protection barrier.

MM Noise 4 Construction contractors of implementing development projects shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. Noise generated by the Project during construction and operation has the potential to generate elevated noise levels that may disrupt the nearby residences to the east (R1 and R2) and southeast (R3) and Val Verde High School and Val Verde Regional Learning Center to the south (R4 and R5). Receiver locations R1 through R5 represent noise sensitive land uses in the Project vicinity where the Noise Analysis evaluated the potential for ambient noise levels to increase as a result of the Project.

Temporary Increase in Ambient Noise Levels (Construction)

The City's Municipal Code restricts construction to the hours of 7:00 am to 7:00 pm on any day except Sundays or applicable holidays and limits construction noise levels to a maximum noise level (L_{MAX}) of 80 A-weighted decibels (dBA) in residential zones.

The Project would generate temporary increases in noise during construction. Construction of the Project would require site clearing, grading, installation of underground utilities/infrastructure, construction of new buildings, paving, and architectural coating. The magnitude of the noise impact would depend on the type of construction activity, equipment, duration of each construction phase, distance between the noise source and receiver, and any intervening structures. Construction equipment would be continuously moving across the site, and equipment is not anticipated to be located at a single location during a typical workday. The Noise and Vibration Analysis therefore modeled construction equipment using five nearby sensitive receivers and their shortest distance to the Project's property line, as shown in Table 4, *Construction Noise by Project Receiver*, below.

Table 4
CONSTRUCTION NOISE BY PROJECT RECEIVER

Receiver Location	Distance from Project Property Line (feet)	Highest Construction Noise Levels (dBA L_{MAX})	Threshold (dBA L_{MAX})	Threshold Exceeded?
R1	94	59.9	80	No
R2	469	54.0	80	No
R3	1,405	48.7	80	No
R4	1,884	47.9	80	No
R5	1,900	48.6	80	No

Source: Urban Crossroads 2023b
dBA = A-weighted decibel; L_{MAX} = maximum noise level

The Project would comply with the Municipal Code restrictions on construction hours, except during the potential paving activities, when prior approval from the City would be required. As shown in Table 4, the loudest combination of equipment would generate noise levels of 59.9 dBA L_{MAX} at the nearest residence, which would be below the 80 dBA L_{MAX} limit. Nighttime paving is estimated to generate noise

levels up to 59.9 dBA L_{MAX} at R1, which would not exceed the 80 dBA L_{MAX} threshold or exceed the average nighttime noise level measured at this location during the site survey. Therefore, Project construction would not result in a temporary increase in ambient noise levels in excess of the applicable standards and impacts would be less than significant. Although impacts from construction noise would be less than significant, the Project would be required to comply with PVCCSP EIR mitigation measures MM Noise 1 through MM Noise 4, which further limit noise generated by construction equipment. No further analysis is required.

Permanent Increase in Ambient Noise Levels (On-Site)

Per the City General Plan Noise Element, impacts would be significant if a commercial project is located within 160 feet of a sensitive land use and the noise levels generated by the project would exceed 60 dBA CNEL at the sensitive land use. The residence to the east of the Project, located at R1, is the only noise-sensitive land use within 160 feet of the Project site. In addition, City Municipal Code Section 7.34.040 limits noise levels at residential land uses to 80 dBA L_{MAX} during daytime hours and to 60 dBA L_{MAX} during nighttime hours. The residential limit is applied to the school land use south of the site. Lastly, in accordance with the PVCCSP EIR, increases in ambient noise levels at noise-sensitive land uses would be considered significant if ambient noise levels exceed 60 dBA hourly noise level (L_{EQ}) and the Project increases noise levels by 3 dBA L_{EQ} or ambient noise levels do not exceed 60 dBA L_{EQ} and the Project increases noise levels by 5 dBA L_{EQ}.

The Project's proposed gas stations, car wash, courtyard, drive-through operations, trash enclosure, storage, and parking lot would generate elevated noise levels compared to existing conditions. Refer to the Noise and Vibration Analysis (Urban Crossroads 2023b) for additional discussion of the noise modeling methodology, as operational noise would emanate from many locations within the property and would not be concentrated in one area. The results of noise modeling for operational sources are provided in Table 5, *Operational Noise by Project Receiver*, and compared with the applicable standards described above.

Table 5
OPERATIONAL NOISE BY PROJECT RECEIVER

Receiver Location	Daytime (dBA L_{MAX})	Nighttime (dBA L_{MAX})	24-Hour (CNEL)	Reference Daytime Ambient Noise Level (dBA L_{EQ})	Daytime Ambient plus Project (dBA L_{EQ})	Reference Nighttime Ambient Noise Level (dBA L_{EQ})	Nighttime Ambient plus Project (dBA L_{EQ})
R1	63.0	56.4	58.1	68.9	69.1	64.4	64.6
R2	59.2	48.9	50.8	63.8	64.0	59.6	59.6
R3	52.7	44.3	46.0	62.8	62.9	62.1	62.1
R4	53.8	43.8	45.6	62.8	62.9	62.1	62.1
R5	55.4	45.3	47.2	69.3	69.3	63.2	63.2

Source: Urban Crossroads 2023b
dBA = A-weighted decibel; L_{MAX} = maximum noise level; CNEL = Community Noise Equivalent Level; L_{EQ} = hourly noise level

As shown in Table 5, the Project would not generate noise levels at nearby sensitive land uses in excess of 80 dBA L_{MAX} during the daytime hours or 60 dBA L_{MAX} during the nighttime hours. In addition, at the residence to the east (R1), Project operation would generate noise level of up to 58.1 dBA CNEL, which would not exceed the 60 dBA CNEL limit. The maximum increase in ambient noise levels as a result of

the Project would be 0.2 dBA L_{EQ}. Therefore, on-site Project operations would not result in increases in excess of the PVCCSP EIR significance criteria. On-site operation of the Project would not result in noise levels exceeding applicable standards and would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant and no further analysis is required.

Permanent Increase in Ambient Noise Levels (Traffic)

As described in the PVCCSP EIR, traffic noise impacts at noise-sensitive land uses would be significant where existing noise levels are less than 60 dBA CNEL and the Project generates an increase in noise levels of more than 5 dBA CNEL or where existing noise levels are more than 60 dBA CNEL and the Project generates an increase in noise levels of more than 3 dBA CNEL.

The Project would generate vehicular traffic along nearby roadways. The segment of Ramona Expressway between Nevada Road and I-215 would experience the largest increase in noise levels due to the off-ramp's proximity to the proposed Project site entrance. Proposed traffic conditions were used to calculate the noise contour distances for Ramona Expressway under existing conditions and post-Project conditions. The off-site roadway noise modeling represents a conservative analysis that does not consider topography or attenuation provided by existing structures. Noise levels generated by traffic on Ramona Expressway would increase by 0.2 dBA CNEL with the addition of Project traffic to existing conditions. This increase would not be a perceptible increase and would not exceed the PVCCSP EIR significance criteria. Traffic noise increases for other roadways in the Project vicinity would be less than those for this segment of Ramona Expressway. Therefore, noise impacts from Project-generated traffic would be less than significant and no further analysis is required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The maximum acceptable vibration threshold identified in the PVCCSP EIR is 0.5 inch per second peak particle velocity (PPV). Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted by the Project. Project development may use small bulldozers, jackhammers, loaded trucks, and large bulldozers, but the largest possible source of vibration during general Project construction activities would be a vibratory roller used for gravel or pavement compaction. At 94 feet, the distance to the nearest off-site building, a vibratory roller could generate up to 0.012 inch per second PPV, which is lower than both the "strongly perceptible" level for human response of 0.1 inch per second PPV (Caltrans 2020) and the structural damage threshold of 0.5 inch per second PPV. Therefore, temporary impacts associated with construction vibration would be less than significant. No substantial sources of vibration would be installed for operation of the Project. Impacts would be less than significant and no further analysis is required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. As noted under Initial Study Checklist item IX.e), the nearest airports to the proposed Project site are MARB/IPA and the Perris Valley Airport. According to the ALUCP for the Perris Valley Airport, the Project site is not located within the Airport Influence Area Boundary (County of Riverside 2011). However, the proposed Project site is located within the limits of the MARB/IPA ALUCP area and the AICUZ study area. The Project site falls outside of the 60 dB CNEL noise contour

identified in the AICUZ study (March Air Reserve Base 2018). The City General Plan states that commercial uses are normally compatible with noise levels up to 65 dBA CNEL and conditionally compatible with noise levels up to 75 dBA CNEL. The Project would therefore not result in excessive airport noise exposure. Potential impacts would be less than significant and no further analysis is required.

XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Applicable PVCCSP Standards and Guidelines

There are no Standards and Guidelines or mitigation measures related to population and housing resources included in the PVCCSP or associated PVCCSP EIR.

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The proposed Project does not include residential development and would not directly affect the number of residents in the area or contribute to the creation of additional housing within the City. The Project includes uses that would not be of a magnitude to support additional population growth in the area, as the uses are considered local serving land uses. The proposed Project would include commercial uses to serve the existing population, such as gas stations, restaurants, and a storage facility. Therefore, since the Project would serve the existing population and has no other features that would directly or indirectly induce growth, potential impacts would be less than significant and no mitigation would be required. No further analysis is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is vacant land that is not currently used for housing. The proposed Project would not remove any existing housing units and would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. There would be no impacts associated with displacing people and no further analysis is required.

XV. Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Applicable PVCCSP Standards and Guidelines

There are no PVCCSP EIR mitigation measures related to public services. The PVCCSP Standards and Guidelines relevant to the analysis of impacts to public services summarized below are incorporated as part of the proposed Project and assumed in the analysis presented in this section.

On-Site Design Standards and Guidelines (Chapter 4.0 of the PVCCSP)

4.2.1 Crime Prevention Measures

Development projects should take precautions by installing on-site security measures. Security and safety of future users of facilities constructed within the PVCC should be considered in the design concepts for each individual development proposal such as:

- Sensored lights that automatically operate at night
- Installation of building alarm, fire systems, and video surveillance
- Special lighting to improve visibility of the address
- Graffiti prevention measures such as vines on wall and anti-graffiti covering; and
- Downward lighting through development site.

Off-Site Design Standards and Guidelines (Chapter 5.0 of the PVCCSP)

5.4 Off-Site Infrastructure Standards

All water facilities shall be sized to provide adequate fire protection per the requirements of the City of Perris Building and Safety Department.

a) Fire protection?

Less Than Significant Impact. The proposed Project would include the construction and operation of commercial uses that would require fire protection services; however, no new residential uses or other uses that would increase the City's population would be involved. The City contracts with the Riverside County Fire Department to provide fire protection services within the City and has two fire stations within its boundaries that are served by 27 firefighters (City 2024a). The two fire stations are located at 210 W. San Jacinto Avenue (Station No. 1) and 333 Placentia Avenue (Station No. 90) and are located approximately 4.0 and 2.0 miles from the Project site, respectively. As such, the nearest fire station and presumed first responder is Station No. 90. The Project is a commercial development consistent with the site's land use designation and would not spur the growth of the region in an unplanned manner that would require the construction of new or expanded fire protection facilities. In compliance with Perris Municipal Code Section 19.68.020, *Development Impact Fees*, the Project applicant would be required to pay a development impact fee to fund the acquisition, design, and construction of public facilities, including fire protection facilities, necessary to serve new development within the City. Payment of the fee would be required prior to issuance of a building permit. Payment of the development impact fee would provide for the Project's fair share cost contribution to facilities and equipment due to the increased demand for fire protection services.

As part of the development review process, the Project applicant would be required to submit appropriate plans for plan review to ensure compliance with zoning, building, and fire codes. The Riverside County Fire Department would review the Project for access requirements, minimum roadway widths, fire apparatus access roads, fire lanes, signage, access walkways, among other requirements to ensure adequate emergency access would be provided to and within the Project site. The Project would be required to comply with all applicable Building and Fire Code requirements and would submit construction plans for review and approval prior to issuance of any building permit. The proposed development would be required to comply with all applicable City, County, and State codes and ordinance requirements for fire protection. Implementation of all Fire Code requirements would further reduce potential impacts concerning fire protection services. Therefore, potential impacts would be less than significant and no mitigation would be required. No further analysis is required.

b) Police protection?

Less Than Significant Impact. The City contracts with the Riverside County Sheriff's Department to provide police protection services within the City and has a police station located at 137 North Perris Boulevard, approximately 4.0 miles south of the Project site (City 2024b). The proposed Project would include the construction and operation of planned commercial land uses that would require police protection services; however, no new residential uses or other uses that would increase the City's population would be involved. The Project would also not represent a use that would require unique or expanded police protection services. As a result, the Project itself is not expected to require the construction of new or expanded police protection facilities; however, the Project applicant would be

required to pay a development impact fee pursuant to Perris Municipal Code Section 19.68.020, *Development Impact Fees*, to fund the acquisition, design, and construction of public facilities, including police protection facilities, necessary to serve new development within the City. Payment of the fee would be required prior to issuance of a building permit. Payment of the development impact fee would provide for the Project's fair share cost contribution to facilities and equipment due to the increased demand for police protection services in the City. Further, as part of the development review process, Riverside County Sheriff's Department would review the Project and provide comments regarding risks to security and ways to minimize those risks. Therefore, potential impacts would be less than significant and no mitigation would be required. No further analysis is required.

c) Schools?

Less Than Significant Impact. The proposed Project involves the construction and operation of commercial facilities. It is not anticipated to introduce new residents to the Project site that would generate new students and require additional schools. As a result, the Project itself is not expected to require the construction of new or expanded school facilities; however, the Project applicant would be required to pay school impact fees to the Val Verde Unified School District in accordance with Senate Bill 50 (SB 50). Pursuant to Government Code Section 65995(3)(h), payment of statutory fees is deemed to be full and complete mitigation of impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use or development of real property…" Developer fees collected by local school districts pursuant to SB 50 are used for the provision of additional and reconstructed or modernized school facilities. Therefore, potential impacts related to schools would be less than significant and no further analysis is required.

d) Parks?

No Impact. The proposed Project would not result in substantial increases in population and is not anticipated to result in increased use or demand on parks that would require the construction or expansion of additional park and recreational facilities. Therefore, there would be no impact and no further analysis is required.

e) Other public facilities?

No Impact. Other public facilities may include libraries, senior centers, community centers, and pools, all of which are intended to serve the general public. The proposed Project involves the construction and operation of commercial uses that would not result in increased population resulting in increased demand for these services that would require the construction or expansion of other public facilities. Therefore, there would be no impact and no further analysis is required.

XVI. Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Applicable PVCCSP Standards and Guidelines

There are no PVCCSP EIR mitigation measures related to recreation. The PVCCSP Standards and Guidelines relevant to recreation summarized below are incorporated as part of the proposed Project and assumed in the analysis presented in this section.

Commercial Design Standards and Guidelines (Chapter 7.0 of the PVCCSP)

7.2.1.4 Plazas and Open Space Areas

a. Commercial centers over 100,000 square feet require a plaza of at least one square foot per 100 square foot of building area.

b. Retail and food service areas over 10,000 square feet shall provide outdoor seating areas for patrons.

c. Site design layout is encouraged to separate employee break areas from public plazas.

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed Project consists of construction and operation of commercial uses. The Project would not increase the use of or create the need for new parks and recreational facilities. Similarly, the proposed Project would not result in physical deterioration of an existing open space area or any recreation facilities. Therefore, there would be no impact and no further analysis is required in the EIR.

b. Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed Project does not include recreational facilities with the exception of pedestrian elements providing access to the Project site. The Project would not require or result in the

need to construct or expand recreational facilities in the City. Therefore, there would be no impact and no further analysis is required.

XVII. Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

A Traffic Analysis by Urban Crossroads (2023c) was prepared for the proposed Project and is attached to this Initial Study as Appendix J. A Vehicle Miles Travelled (VMT) Screening Evaluation prepared by Urban Crossroads (2024) was prepared for the proposed Project and is attached to this Initial Study as Appendix K. The findings and recommendations from these reports are incorporated into the following analysis.

Applicable PVCCSP Standards and Guidelines

The PVCCSP Standards and Guidelines summarized below relevant to the analysis of transportation/traffic presented in this Initial Study are incorporated as part of the proposed Project and assumed in the analysis presented in this section. Additionally, a Traffic Analysis was prepared by Urban Crossroads for the proposed Project (Appendix J). The information and recommended measures provided in that report are also incorporated into the analysis below.

Infrastructure Plan (Chapter 3.0 of the PVCCSP)

3.1 Circulation

The Circulation Plan provides Standards and Guidelines intended to ensure the safe and efficient movement of people and goods within the PVCC area, as well as meeting the future transportation needs City-wide.

3.2 Vehicular Circulation

Freeway

Interstate-215 (North-South): I-215 runs along the Western boundary of the PVCC. Existing freeway on and off-ramps are located at Harley Knox Boulevard and Ramona Expressway. Placentia Avenue is a planned future interchange.

Expressways

An expressway is a limited access divided highway built to accommodate high-speed travel by automobiles within a 184-foot right-of-way. At least two traffic lanes in each direction are physically separated within a 134-foot curb-to-curb width.

Arterials

An arterial serves major traffic movements or major traffic corridors within 128-foot right-of-way. While they may provide access to abutting land, their primary function is to serve traffic moving through the area. Arterial streets generally have a curb-to-curb width of 94-feet.

A secondary arterial is intended to carry local traffic between the local street system and the primary arterial system. Arterial streets generally vary from a curb-to-curb width of 64-feet to 70-feet and may have one or two lanes in each direction.

Off-Site Design Standards and Guidelines (Chapter 5.0 of the PVCCSP)

5.2 Off-Site Vehicular Circulation: Roadway Standards and Guidelines, Truck Route Standards and Guidelines

The PVCC Circulation Plan establishes the general alignments and right-of-way sections to safely meet the transportation needs of its residents, businesses, and visitors. The improvements required for development of individual projects along segments of roadways identified on the Circulation Plan will be confirmed at the development stage.

Commercial Design Standards and Guidelines (Chapter 7.0 of the PVCCSP)

7.2.1.1 Vehicular Access and On-Site Circulation

Businesses with drive-thru service(s) shall provide adequate stacking to accommodate eight vehicles prior to each pick-up window to avoid conflict with on-site circulation.

7.2.1.3 Parking and Loading

Parking Requirements

Refer to City of Perris Zoning Ordinance, Chapter 19.69.

Disperse Parking Areas

When possible, disperse parking into multiple smaller lots or separated parking blocks as opposed to one large lot so that cars are not the dominant visual element of the site from the street.

Limited Store Front Parking

To promote visibility of the business, store parking should be limited as shown in Figure 7.0-1. Should store front parking be provided, landscaping treatments shall be required to provide a more visually appealing store front and parking should be limited to the greatest extent possible.

The mitigation measures from the PVCCSP EIR that are applicable to this Project are as follows:

MM Trans 1 Future implementing development projects shall construct on-site roadway improvements pursuant to the general alignments and right-of-way sections set forth in the PVCC Circulation Plan, except where said improvements have previously been constructed.

MM Trans 2 Sight distance at the project entrance roadway of each implementing development project shall be reviewed with respect to standard City of Perris sight distance standards at the time of preparation of final grading.

MM Trans 3 Each implementing development project shall participate in the phased construction of off-site traffic signals through payment of that project's fair share of traffic signal mitigation fees and the cost of other off-site improvements through payment of fair share mitigation fees which include NPRBBD (North Perris Road and Bridge Benefit District). The fees shall be collected and utilized as needed by the City of Perris to construct the improvements necessary to maintain the required level of service and build or improve roads to their build-out level.

MM Trans 4 Prior to the approval of individual implementing development projects, the RTA shall be contacted to determine if the RTA has plans for the future provision of bus routing in the Project site that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the Project site, road improvements adjacent to the Project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalk and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project.

MM Trans 5 Bike racks shall be installed in all parking lots in compliance with City of Perris standards.

MM Trans 7 Implementing project-level traffic studies shall be required for all subsequent implementing development proposals within the boundaries of the PVCC as approved by the City of Perris Engineering Department. These subsequent traffic studies shall identify specific project deficiencies and needed roadway improvements to be constructed in conjunction with each implementing development project. All intersection spacing for individual tracts or maps shall conform to the minimum City

intersection spacing standards. All turn pocket lengths shall conform at least to the minimum City turn pocket length standards. If any of the proposed improvements are found to be infeasible, the implementing development project applicant would be required to provide alternative feasible improvements to achieve levels of service satisfactory to the City.

MM Trans 8 Proposed mitigation measures resulting from project-level traffic studies shall be coordinated with the NPRBBD to ensure that they are in conformance with the ultimate improvements planned by the NPRBBD. The applicant shall be eligible to receive proportional credits against the NPRBBD for construction of project level mitigation that is included in NPRBBD.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. The PVCCSP EIR identified several transportation guidelines, identified above, which have been incorporated into the Project design. PVCCSP EIR mitigation measure MM Trans 4 has been completed given coordination with the RTA, which is further documented in Initial Study Checklist item III.b). A Traffic Analysis has been prepared for the Project (Appendix J) in accordance with PVCCSP EIR mitigation measure MM Trans 7 and the improvements required to satisfy the remaining PVCCSP EIR mitigation measures are contained therein and have been incorporated into the Project.

The Traffic Analysis for the Project states the proposed Project is projected to generate approximately 14,394 two-way trips per day with approximately 747 a.m. peak hour trips and 590 p.m. peak hour trips (actual vehicles). To further evaluate if the Project would conflict with existing circulation plans, or effectiveness of circulation, a traffic signal warrant analysis was conducted by Urban Crossroads and summarized in the Traffic Analysis. Traffic signal warrants for existing traffic conditions are based on existing peak hour intersection turning volumes. There are no applicable study area intersections that may warrant a traffic signal for existing traffic conditions.

The proposed Project would include site access and roadway improvements to Ramona Expressway and Webster Avenue. The Project would improve Ramona Expressway to its ultimate half-section as an Expressway (184-foot right-of-way, 134-foot curb-to-curb) between Nevada Street and Webster Avenue consistent with the PVCCSP and the General Plan Circulation Element. Webster Avenue is currently constructed at its ultimate half-section pavement width as a Secondary (94-foot right-of-way) and improvements would be limited to curb, gutter, and sidewalk adjustments to accommodate Project driveways. The City's Circulation Element recommends a Class IV bike lane along the site's Ramona Expressway frontage and a Class II bike lane along the site's Webster Avenue frontage. A bike lane would be striped within Webster Avenue per the Circulation Element, but no bike lane would be provided at the time of Project opening along Ramona Expressway given the lack of connections to bike lanes within adjacent segments of Ramona Expressway. However, sufficient right-of-way is reserved along the Ramona Expressway frontage of the site such that a bike lane could be striped in the future. Therefore, the Project would not conflict with or preclude implementation of recommended bicycle lane improvements in the future. Further, a meandering walkway would be installed along the Project's Ramona Expressway frontage. The Project would implement improvements consistent with PVCCSP, General Plan Circulation Element, and PVCCSP mitigation measure requirements, and the Project

would not conflict with circulation plans or policies. Impacts would be less than significant and no further analysis is required.

b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. The City of Perris adopted the Transportation Impact Analysis Guidelines for CEQA in May 2020, which include vehicle miles traveled (VMT) thresholds. Section 15064.3 of the CEQA Guidelines, upon which the aforementioned Traffic Impact Analysis Guidelines are based, recommends the use of VMT as the primary metric for the evaluation of transportation impacts, under CEQA, associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region.

The proposed Project's VMT impact has been assessed in accordance with guidance from the City of Perris Transportation Impact Analysis Guidelines for CEQA. The transportation guidelines provide a framework for "screening thresholds" for when a project is expected to cause a less than significant impact without conducting a detailed VMT study. Project transportation impacts under CEQA were assessed using the City of Perris VMT Scoping Form for Land Use Projects. The criteria for a project resulting in a less than significant VMT impact is as follows:

- Is the project 100% affordable housing?
- Is the project within 1/2 mile of the qualifying transit?
- Is the project a local serving land use?
- Is the project in a low VMT area?
- Are the project's Net Daily Trips less than 500 average daily trips?

The Project components meet the Local-Serving Land Use screening criteria. Therefore, a detailed VMT study is not required and impacts related to VMT would be less than significant. No further analysis is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The Project site is within the influence area of MARB/IPA and does not include any design features that would increase traffic hazards. The Project is consistent with the on-site and surrounding land use and zoning designations, and implementation of the Project would not introduce incompatible uses to the Project site. Improvements related to safety contained in PVCCSP EIR mitigation measure MM Trans 2 would ensure that adequate site distance is provided at each Project access location. Additionally, prior to the issuance of final occupancy, City staff would ensure that signing/striping are implemented in conjunction with the detailed construction plans for the Project site and off-site improvement area.

The recommendations contained in the Traffic Analysis (Urban Crossroads 2023c), such as installing traffic signals and stop controls, have been incorporated into the Project design and would reduce traffic hazards at proposed intersections. Additionally, operation of the Project would occur within two adjacent parcels and would not create dangerous curves or intersections. During construction, the

proposed Project would comply with all local regulations regarding temporary road closures and/or one-way traffic controls. Impacts would be less than significant and no Project-specific mitigation would be required. No further analysis is required.

d) Result in inadequate emergency access?

Less Than Significant Impact. A significant impact would occur if the design of the proposed Project would not satisfy emergency access requirements of the Riverside County Fire Department or in any other way threaten the ability of emergency vehicles to access and serve the Project site or adjacent uses. The proposed Project would not result in inadequate emergency access. Site access for personal vehicles would be provided via four driveways along Ramona Expressway and two driveways along Webster Avenue. Driveways 2 and 4 along Ramona Expressway and Driveway 6 along Webster Avenue would be right-in/right-out driveways, while the remaining driveways would be full access driveways. The driveways are of standard size to accommodate passenger cars and trucks. All access features are subject to the City of Perris design requirements, including the Fire Department's requirement of a minimum 20-foot width for driveways. Because of this, emergency vehicles would be able to access the Project site. Impacts associated with this issue would be less than significant and no further analysis is required.

XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

A Cultural Resources Assessment (Keller 2023) which is attached to this Initial Study as Appendix C, was prepared for the proposed Project. Its findings and recommendations are also incorporated into the following analysis. Further background information regarding the records searches, Native American correspondence, and surveys completed for this Project is available in Section V, *Cultural Resources*.

Applicable PVCCSP Standards and Guidelines

There are no PVCCSP Standards and Guidelines or PVCCSP EIR mitigation measures related to the analysis of tribal cultural resources. The Cultural Resources Assessment (Keller 2023; Appendix C) was prepared for the Project in compliance with PVCCSP EIR mitigation measure MM Cultural 1, provided in Section V, *Cultural Resources*. Additional PVCCSP EIR mitigation measures related to cultural resources have been replaced by the City of Perris as reflected in Project mitigation measures MM CR 1 and MM CR 2.

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

    i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

    ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated. The Cultural Resources Assessment involved the request for a records search of the Sacred Lands File of NAHC, which indicated that sacred lands have been recorded in the same range, township, and section as the Project site. The Native American contacts listed in the NAHC response letter were contacted and two responses were received. The Rincon Band of Luiseño Indians stated that the Project site is within the Tribe's Traditional Use Area, but they are unaware of specific cultural resources that may be affected by the Project. The Agua Caliente Band of Cahuilla Indians requested that a cultural resources inventory of the Project area be conducted and that the results be sent to them.

There are no known tribal cultural resources present within the Project site and the contacted Tribes did not request monitoring at the site. Therefore, no change in the significance of tribal cultural resources is anticipated to occur as a result of the Project. However, a qualified archaeologist would be retained to serve as the Project Archaeologist in accordance with Project mitigation measure MM CR 1. Project mitigation measure MM CR 1, provided in Section V, *Cultural Resources*, implements PVCCSP EIR mitigation measures MM Cultural 2 through MM Cultural 4, as subsequently revised by the City of Perris.

In the unlikely event that human remains are discovered during construction, all activities in the vicinity of the remains would cease and the NAHC would be contacted pursuant to California Health & Safety Code Section 7050.5, California PRC Section 5097.98, and Project mitigation measure MM CR 2.

Project mitigation measure MM CR 2 implements PVCCSP EIR mitigation measure MM Cultural 6, as subsequently revised by the City of Perris, and is provided in Section V, *Cultural Resources*.

In accordance with the requirements of Assembly Bill 52, the City, as the lead agency, will notify the tribes identified by the NAHC and provide the proposed mitigation to review. With completion of consultation pursuant to Assembly Bill 52 and implementation of Project mitigation measures MM CR 1 and MM CR 2, potential impacts to tribal cultural resources would be less than significant. No further analysis is required.

XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

On-Site Design Standards and Guidelines (Chapter 4.0, PVCCSP)

4.2.1 General On-Site Project Development Standards and Guidelines

Trash and Recyclable Materials

Development of all PVCC sites shall contain enclosures (or compactors) for collection of trash and recyclable materials subject to water quality and best management practices. All trash enclosures shall comply with City of Perris Standards and with applicable City of Perris recycling requirements.

Waste Hauling

Construction and other waste disposal shall be hauled to a city approved facility.

4.2.7 Utilities

Utility Connections and Meters

All utility connections and meters shall be coordinated with the development of the site and should not be exposed, except where deemed appropriate or necessary by the building official. To the greatest extent possible, these utility connections should be integrated into the building or the architectural design.

Pad-Mounted Transformers and Meter Box Locations

Pad-mounted transformers and/or meter box locations shall be screened from view from surrounding properties and public rights-of-way. Utilities shall be located underground, unless waived by the City Engineer.

Electrical, Telephone, CATV and Similar Service Wires and Cables

All electrical, telephone, CATV and similar service wires and cables which provide direct service to the property being developed, within the exterior boundary lines of such property, shall be installed underground. Electrical Transmission Lines Electrical transmission lines 66 kilovolts and less shall be installed underground. All equipment shall be internalized into the building design to the greatest extent possible. When unfeasible, they shall be screened and not prominently visible from public rights-of-way.

There are no PVCCSP EIR mitigation measures related to utilities and service systems.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. The Project site is located adjacent to existing industrial and commercial development that require utility connections similar to those necessary to serve the Project. Therefore, the Project's utility improvements primarily consist of off-site connections within developed roadways and on-site improvements to connect utilities to each of the proposed buildings as needed. The utility

connections required to serve the Project would occur in conjunction with other on-site improvements analyzed as part of the Project.

The Project site is located within the existing service area of the EMWD and is bordered by existing development that is currently connected to existing EMWD water and wastewater lines. No additional improvements are needed to existing water lines, sewer lines, or treatment facilities to serve the Project. Standard connection fees would address any incremental impacts of the Project. As discussed in Section X, *Hydrology and Water Quality*, the Project would provide on-site stormwater storage and treatment systems such that no new public storm drain facilities would be required. Runoff from the site would outlet at the southeast corner to an existing stormwater drainage facility.

Electric, natural gas, and telecommunications connections would occur east of Webster Avenue and would be pulled throughout the Project site. The Project Applicant would be required to provide all necessary on-site infrastructure and pay applicable connection fees.

In conclusion, connections to utilities would be made at the Project site during construction and the affected area has been assessed throughout this Initial Study. The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities that could cause additional significant environmental effects. Therefore, impacts would be less than significant and no further analysis is required.

b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. Operation of the proposed Project would result in increases in potable water demand. City residents and businesses are served by the EMWD. Water is imported via the California Aqueduct from northern and central California, which is managed by the Metropolitan Water District of Southern California. A secondary source of imported water is provided by the Colorado River Aqueduct. According to the EMWD's Urban Water Management Plan, which was last updated in 2020, the EMWD will continue to rely on imported water from the Metropolitan Water District as the main source of supply while attempting to increase the use of recycled water (EMWD 2021a). The water used within the EMWD service area as of 2020 was approximately 153,615 acre feet per year and is expected to increase to 241,000 acre feet per year (during a normal year) by the year 2040, an increase of 87,385 acre feet per year. Based on the PVCCSP EIR water demand assumption of 0.75 acre feet per year per acre of commercial and industrial development, the proposed Project's estimated water demand is approximately 15.21 acre feet per year, which is within the anticipated water demand increase for EMWD. According to the 2020 Urban Water Management Plan for EMWD, there is sufficient supply to accommodate demand under normal and single- and multiple-dry year conditions utilizing imported water. Local supplies would supplement imported supplies and provide additional supply reliability. Local supplies include groundwater pumped from the San Jacinto groundwater Basin, desalinated groundwater, and recycled water. Therefore, the EMWD would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant and no further analysis is required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Wastewater in the City is treated by the EMWD at the Perris Valley Regional Water Reclamation Facility, which has typical inflows of 15.5 million gallons per day (EMWD 2021b). Currently, the facility has the capacity to treat 22.0 million gallons per day; therefore, the facility has the capacity to accommodate future increases in wastewater. Wastewater generated by the Project would be discharged into the local sewer main and conveyed for treatment.

According to the PVCCSP EIR wastewater generation assumption of 1,700 gallons per day per acre of commercial development, the proposed Project's total estimated water consumption is approximately 34,476 gallons per day, which would be the maximum potential wastewater generated at the site. This volume is within the Perris Valley Regional Water Reclamation Facility's remaining treatment capacity of 6.5 million gallons per day. This Project would not inhibit the ability of the Perris Valley Regional Water Reclamation Facility to operate within its established wastewater treatment requirements. Therefore, the proposed Project would have a less than significant impact related to wastewater treatment. No further analysis is required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Significant impacts could occur if the proposed Project would exceed the existing permitted landfill capacity or if it would violate federal, state, and local statutes and regulations. Solid waste disposal services in the City are provided by CR&R Incorporated – Environmental Services. Waste from the City is primarily transferred to the El Sobrante Landfill in Corona or the Badlands Landfill in Moreno Valley. These solid waste facilities serving Riverside County have a combined remaining capacity of 151,777,170 tons. The El Sobrante Landfill has the capacity to remain open until 2051, while expansion of the Badlands Landfill was recently approved to maintain capacity until 2059. (CalRecycle 2024).

Overall, the amount of solid waste produced as a result of this Project is negligible compared to the capacity available at the two primary landfills. Compliance with Riverside County waste reduction programs and policies would also reduce the volume of solid waste entering landfills. Individual development projects within Riverside County would be required to comply with applicable state and local regulations, thus reducing the amount of landfill waste by at least 50 percent. Therefore, because there would be adequate landfill capacity in the region to accommodate Project-generated waste, and the proposed Project is not expected to generate a substantial quantity of solid waste, the impact would be less than significant. No further analysis is required in the EIR.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Federal, State, and local statutes and regulations regarding solid waste generation, transport, and disposal are intended to decrease solid waste generation through mandatory reductions in solid waste quantities (e.g., through recycling and composting of green waste) and the safe and efficient transport of solid waste. The proposed Project would be required to coordinate with CR&R Waste Services to develop a collection program for recyclables, such as paper, plastics, glass, and aluminum, in accordance with local and State programs, including the California Solid Waste Reuse and

Recycling Act of 1991. Additionally, the proposed Project would be required to comply with applicable practices enacted by the City under the California Integrated Waste Management Act of 1989 (Assembly Bill 939) and any other applicable local, State, and federal solid waste management regulations. Assembly Bill 939 requires all counties to prepare a County Integrated Waste Management Plan. The County of Riverside adopted its County Integrated Waste Management Plan in 1998. The County Integrated Waste Management Plan includes the Countywide Summary Plan; the Countywide Siting Element; and the Source Reduction and Recycling Elements, the Household Hazardous Waste Elements, and Non-disposal Facility Elements for Riverside County and each city in Riverside County. In summary, the proposed Project would comply with all regulatory requirements regarding solid waste. Impacts would be less than significant, and no further analysis is required in the EIR.

XX. Wildfire

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
a) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Applicable PVCCSP Standards and Guidelines

There are no Standards and Guidelines or mitigation measures related to wildfire management included in the PVCCSP or its associated PVCCSP EIR.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. According to Figure S-05, Wildfire Hazards, of the City General Plan Safety Element, the Project site is located within a Local Responsibility Area and is not located in or near an area identified as a Very High Fire Hazard Severity Zone (City 2021). The Project site is not within a State Responsibility Area. Therefore, the Project would have no impacts related to wildfires or the associated issues identified in thresholds a through d, above. No impacts would occur and no mitigation is required. No further evaluation is required.

XXI. Mandatory Findings of Significance

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☒	☐	☐	☐
c)	Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. See Sections IV, V, VII, and XVIII for further discussion of the proposed Project's potential impacts on biological resources, cultural resources, paleontological resources, and tribal cultural resources. With implementation of the mitigation measures identified in those Sections, and compliance with City programs and requirements identified in this Initial Study, potential impacts associated with biological resources, cultural resources, paleontological resources, and tribal cultural resources would be reduced to a less than significant level. Therefore, the Project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Impacts would be less than significant with incorporation of the applicable mitigation measures.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Potentially Significant Impact. CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. While the proposed Project would indirectly contribute to cumulative impacts associated with increase urban development in the region, these impacts have been previously evaluated by the City and considered in development of the City's General Plan and PVCCSP as set forth in this Initial Study. Air quality and greenhouse gas emissions are key areas of concern and, as discussed in this Initial Study, have the potential to exceed applicable thresholds of significance. As such, the Project has the potential to generate air pollutant and greenhouse gas emissions that would be cumulatively significant. Cumulative impacts to air quality and greenhouse gas emissions will be analyzed in an EIR.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. Based on the analyses contained in Sections III and VIII of this Initial Study, the proposed Project could result in substantial adverse effects on human beings by having a significant impact on air quality and greenhouse gas emissions. Impacts to air quality and greenhouse gas emissions will be analyzed in an EIR.

4.0 References

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WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN
CONSISTENCY ANALYSIS

"PERRIS GATEWAY"

DPR-22-05280 (PHASE 1)
DPR-22-00028 (PHASE 2)
CUP-22-005295 (PHASE 1)
SPA-22-0528
TPM 38576 (PHASE 1)

APNS 314-170-020, 314-180-023 AND 314-180-024

LOCATION:
Northwest corner of intersection of Ramona Expressway and Webster Avenue in City of Perris, Riverside County, California. Address: 4100 North Webster Avenue, Perris, California 92571. Mapped in portion of Section 1, Township 4 South and Range 4 West of USGS Topographic Map, 7.5 Minute Series, Perris, California Quadrangle.

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REPORT DATE:
January 18, 2024

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EXECUTIVE SUMMARY

INTRODUCTION / RESULTS

Principe and Associates was hired by Optimus Building Corporation to prepare a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis on 20.28 recorded acres of land located at the northwest corner of the intersection of the Ramona Expressway and Webster Avenue in the City of Perris, Riverside County, California **(Site Vicinity Map)**. The site's west property line parallels the northbound onramp to the I-215 Freeway. The address of the site is 4100 North Webster Avenue, Perris, California 92571. The site is mapped in portions of Section 1, Township 4 South and Range 4 West of USGS Topographic Map, 7.5 Minute Series, Perris, California Quadrangle **(USGS Location Map)**. The three Assessor's Parcel Numbers comprising the site are 314-170-020, 314-180-023 and 314-180-024.

Section 1 of this report describes the project and the project site. Section 2, 'Environmental Assessment', describes the topographic, hydrographic, soils, and biological environments present on the site. The purpose of Section 3, 'Consistency Analysis', is to identify and discuss (1) how the site relates to MSHCP Reserve Assembly and (2) how the site meets requirements of MSHCP Implementation Structure (Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4). Thresholds of Significance presented in Section 4 are used to determine the significance of environmental impacts. Levels of Significance (*i.e.,* Potentially Significant Impact, Less Than Significant Impact, etc.) are then applied to a checklist of questions (Thresholds BIO A-F) addressing biological resources to be answered during the initial assessment of a project. Section 5 lists Project Design Features and Mitigation Measures That Reduce Impacts, if any.

The County of Riverside, eight (8) additional land jurisdictions, and approximately fourteen (14) cities adopted the Western Riverside County MSHCP in 2003. The MHSCP is a habitat conservation plan formed and permitted under the Federal Endangered Species Act (FESA). The MSHCP builds upon existing preserves and attempts to provide connectivity and wildlife corridors, and proposes to conserve approximately 500,000 acres and 146 different species. Approximately 347,000 acres are anticipated to be conserved on existing Public/Quasi-Public lands with additional contributions of approximately 153,000 acres acquired from private land owners. The MSHCP establishes seven (7) core reserve areas and associated linkages between proposed and existing core areas. The MSHCP provides a Section 10(a) take permit under the FESA for property owners, developers, and participating public agencies.

MSHCP Consistency Analysis Preparation

The purpose of this report is to document the existing biological resources on the site and to analyze the potential biological and regulatory constraints and impacts associated with the proposed development in terms of MSHCP Implementation Structure. This report presents the findings of an environmental assessment and consistency analysis for the proposed project, compilation of existing documentation, and complete walk-over field surveys conducted during the months of June and July, 2023. This document is

Source of Aerial Photo: Google Earth 5-2023

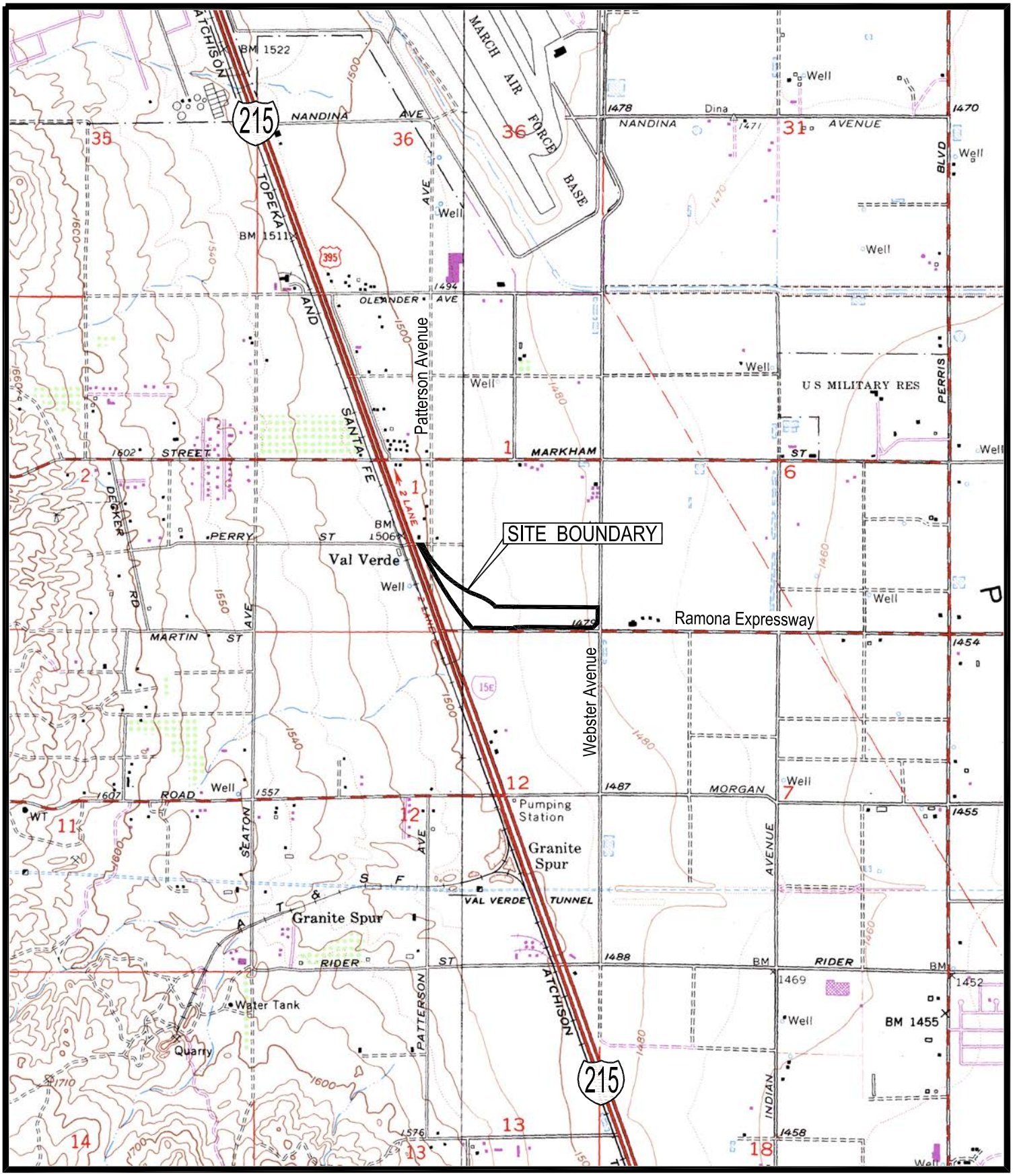
Scale: 1"= 1000'

0 1000 2000 Feet

SITE VICINITY MAP

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES



Base Map Source: USGS 7.5 Min.
Perris, Calif. Quad.

0 2000 4000 Feet

USGS LOCATION MAP

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

consistent with accepted scientific and technical standards, and the requirements of the MSHCP, United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). It focuses on documenting those resources considered to be significant and/or sensitive as outlined by the MSHCP and California Environmental Quality Act (CEQA). Onsite biological resources were analyzed to determine which if any are subject to MSHCP Implementation Structure (Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4), United States Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act, CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code, the Santa Ana Regional Water Quality Control Board (RWQCB) 401 certification/Waste Discharge Requirements.

Methodology

Prior to visiting the site, a review of all available and relevant literature and data on the biological characteristics, sensitive habitats and species potentially present on or adjacent to the site was conducted. Additionally, current and historic aerial photographs were examined. After reviewing the available information, Principe and Associates conducted a preliminary site assessment on June 4, 2023.

During the initial site assessment process, all three parcels were searched using the Western Riverside County Regional Conservation Agency (RCA) MSHCP Information Maps to determine if the site is located within a MSHCP Cell Group or Criteria Cell, and if the site is located within Amphibian, Burrowing Owl, Mammal, Narrow Endemic Plant, Criteria Area, or Invertebrate Species Survey Areas listed under the Conservation Descriptions. The Information Map showed that the site is not located within a MSHCP Cell Group or Criteria Cell, and not within any Species Survey Areas.

During the preliminary site assessment, Vegetation Associations were characterized, Hydrography and Drainage features potentially subject to USACE/CDFW/RWQCB jurisdiction were examined as well as the site's potential to provide habitats for listed plant and wildlife species identified as candidate, sensitive or special status in local or regional plans, policies or regulations, or by CDFW or USFWS.

Digital images derived from the Soil Survey of Western Riverside Area, California and aerial photographs were used in conjunction with an in-house geographic information system (GIS) to prepare maps illustrating the boundaries of soils types and biological resources present on the site. Soil types and Vegetation Associations were then "ground-truthed" during the walkover field surveys to obtain characteristic descriptions and species composition.

FINDINGS AND CONCLUSIONS

The disturbed Non-Native grasslands vegetation and habitat extant at the site are not considered to be significant biological resources, nor do they possess unique characteristics *(i.e.,* washes, streams, oak trees, juniper trees, or rock outcroppings). Specifically, the following resources are not present at the site:

- Species identified as a candidate, sensitive, or special status species,
- Riparian habitat and/or other sensitive natural plant communities,
- Federally protected wetlands,
- Native resident or migratory fish and wildlife species movement corridors, established native resident or migratory wildlife corridors, and/or native wildlife nursery areas, and/or
- Protected biological resources

The analyses of impacts on biological resources resulting from development of the proposed project have determined that, overall, the proposed project does not create an impact on biological resources. In the case of impacts on migratory birds, it was determined that the proposed project will have less than significant impacts when specific mitigation measures to reduce and/or eliminate the impacts are implemented.

It was also determined that the proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The development and operation of the proposed project is consistent with Sections 6.1.1, 61.2, 6.1.3, 6.1.4, 6.3.2, and 6.4 of the MSHCP.

SECTION 1. PROJECT AND SITE DESCRIPTIONS

1.1 Project Descriptions

The proposed project is the construction of a commercial development on 20.28 acres. The project will be developed in two phases **(Phasing Exhibit)**.

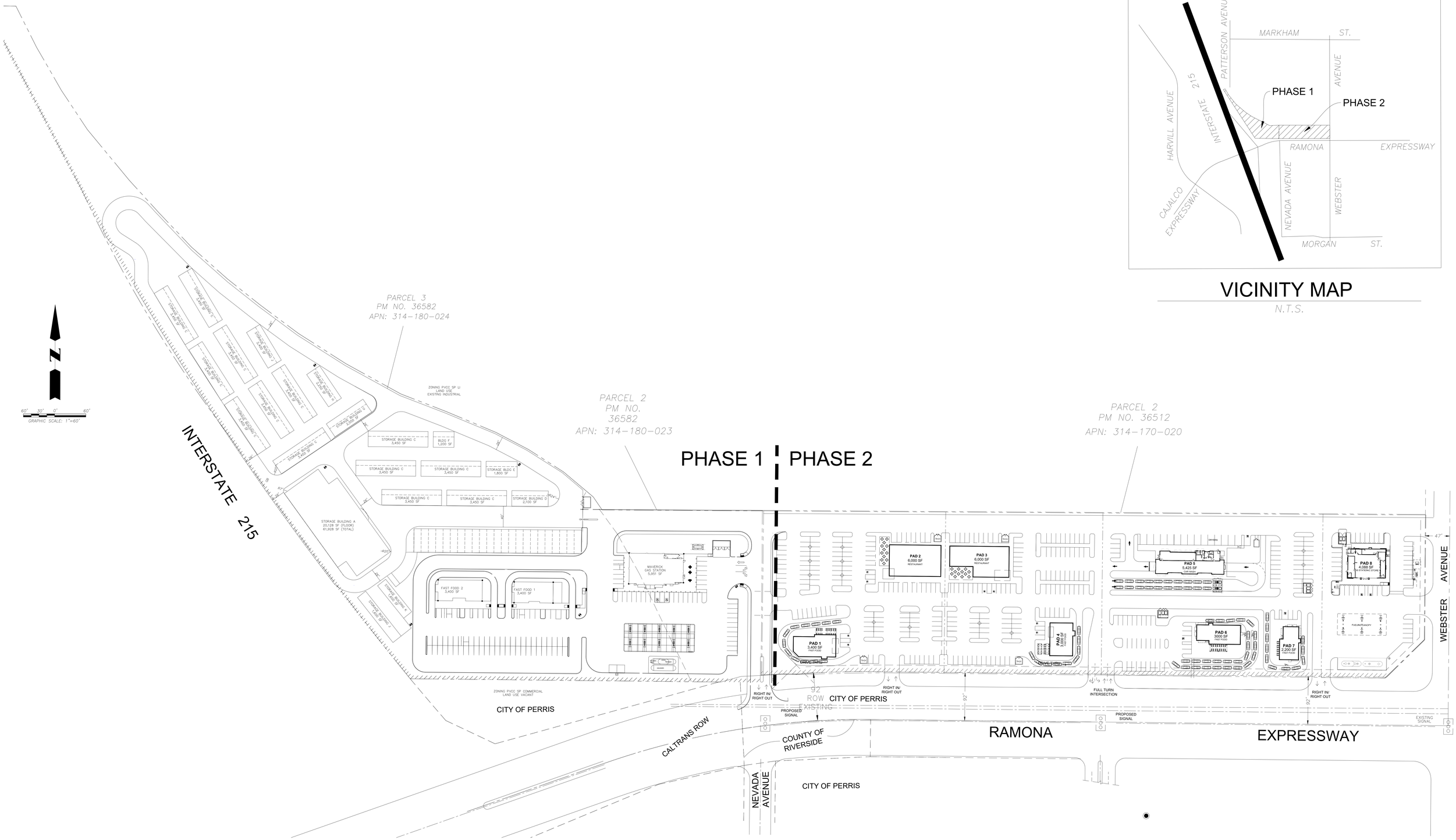
PHASE 1

5951 sq. ft. Maverick Gas Station with 10 fuel pumps
3400 sq. ft. Fast Food 1 with drive-thru
3400 sq. ft. Fast Food 2 with drive thru
61928 sq. ft. Storage Building A
44850 sq. ft. Storage Buildings C 1-C13
2100 sq. ft. Storage Building D
1800 sq. ft. Storage Building E
1200 sq. ft. Storage Building F
2550 sq. ft. Storage Building G
2250 sq. ft. Storage Building H
1600 sq. ft. Storage Building J1
2400 sq. ft. Storage Building J2
1600 sq. ft. Storage Building K
132779 SQ. FT. TOTAL

Primary access to the Phase 1 project will be taken from the Ramona Expressway via one Right In / Right Out ingress/egress driveway for automobiles and trucks. A new traffic

VICINITY MAP

N.T.S.



signal is proposed at this location which coincides with the intersection of the Ramona Expressway and Nevada Avenue. The gas station and fast-food restaurants will be connected by a circular driveway, while internal circulation to the numerous storage buildings will be provided by a 26-foot-wide driveway loop system.

PHASE 2

3400 sq. ft. Pad 1 – Fast Food with drive-thru
6000 sq. ft. Pad 2 – Restaurant
6000 sq. ft. Pad 3 – Restaurant
3000 sq. ft. Pad 4 – Fast Food with drive-thru
5425 sq. ft. Pad 5 – Car Wash
3000 sq. ft. Pad 6 – Fast Food with drive-thru
2200 sq. ft. Pad 7 – Fast Food with drive thru
4068 sq. ft. Pad 8 – Gas Station with convenience store and 6 pumps with fueling canopy
33093 SQ. FT. TOTAL

Primary access to the Phase 2 project will be taken from the Ramona Expressway via two Right In / Right Out ingress/egress driveways for automobiles and trucks. In addition, a full-turn intersection is proposed on the Ramona Expressway. A new traffic signal is also proposed at this location. Secondary access will be provided by two ingress/egress driveways on Webster Avenue. Internal circulation to the gas station, car wash, two restaurants, four fast-food restaurants, and all parking spaces will be provided by a driveway loop system. Once completed, Phase 1 and Phase 2 will be connected by the two driveway loop systems.

The project will be retaining and infiltrating the post development runoff within a series of underground storage facilities located at the project site. They have been designed in a way that each parcel can be developed independently of each other. The underground storage facilities will also provide for water quality treatment through collection and infiltration. There is one area where a bio swale will be used to treat surface runoff. In addition to the typical required onsite mitigation of developed runoff, the project will install a 36-inch reinforced concrete storm drain pipe along the Ramona Expressway to accept and route the offsite flow that meets the site at the southwest corner. The 32.6 cubic feet per second offsite flow will be carried to the east and join the existing outlet at the southeast corner of the site. There is an existing headwall and culvert under Webster Avenue. The headwall will be removed and replaced with a storm drain manhole. This 36-inch pipe will also function as the overflow path for each of the onsite underground storage facilities.

1.2 Site Description

The site is currently vacant and undeveloped with structures. The site is primarily comprised of disturbed Non-native grasslands vegetation and habitat that is periodically abated for fire prevention purposes. Aerial photographs were reviewed to evaluate past land use patterns at the site and in the surrounding areas. The photos were taken in the

following years: 1966, 1967, 1978, 1985, 1994, 1997, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. The review revealed that the during the years between 1966 and 2020, the majority of the site and the parcels of land located to the north were undeveloped agricultural land. In 1966, a single-family residence had been constructed in the northwest corner of the site. The Ramona Expressway and Webster Avenue were present along the site's south and east property lines, and were local streets. A highway was present adjacent to the site's west property line. Agricultural crops could be seen growing on portions of the site in 1967 and 1978. In 1985, Nevada Road had been extended north of the Ramona Expressway and onto the site. Also in 1985, Patterson Avenue had been extended to the southeast and onto the site to intersect with Nevada Road. By 1994, the highway and local streets were improved. The site and surrounding areas remained basically the same between 1997 and 2016. In 2018, construction of two large industrial buildings had begun north of the site. Ferguson Enterprises is still present north of the eastern portion of the site, while the building located north of the western portion of the site is for lease. The existing house in the northeast corner of the site was removed. The aerial photograph taken in 2020 shows the Patterson-Nevada roadway through the site was abandoned as additional development was occurring north of the site along Patterson Avenue, including a new Amazon distribution center.

SECTION 2. ENVIRONMENTAL SETTING

2.1 Topography

Site topography is flat-lying and featureless. Natural topography has been completely altered in the past by long-term disturbances associated with agricultural and weed abatement activities (*i.e.,* chain-flail-mowing, disking, tilling, etc.). There are no boulder or rock outcrops on the site.

The majority of the elevation at the site is centered around the 1500-foot contour. There is a moderate change in elevation of approximately 15 feet across the site (1485→1500 feet). The site is located between 0 and 15 feet below the elevation of the Ramona Expressway and the northbound onramp of the I-215 Freeway.

2.2 Hydrography, Drainage and Jurisdictional Considerations

Natural watercourses of any kind are not present on this site (*i.e.,* perennial or intermittent blueline streams, ephemeral drainages, historical drainages, etc.).

Drainage on the site is primarily by overland flow or downslope movement of storm water runoff (sheet flow) originating on the slightly higher elevated terrain located in the northern portions of the site. The storm water runoff is characterized by low volume, infrequent and short duration flows that only occur during and after precipitation events. The site drains gradually southwest to northeast with varying terrain with a flow slope of 0.7 percent. Most of the storm water and surface runoff originating on the flat-lying site percolates into the ground. There are two concentrations of offsite flow impacting the subject property. A sheet flow condition enters the site along the western property line

from the undeveloped land to the west (Perris Gateway Phase I). At the southwest corner of the site, there is an existing earthen channel that conveys runoff from the onramp easterly along the north side of the Ramona Expressway. Flows continue easterly in the earthen channel before entering an existing crossing of Webster Avenue. No regional flows impact the site.

Two existing drainage features are present in the southeast corner of the site. The culvert constructed beneath Webster Avenue opens into an earthen drainage ditch excavated to carry flows into a culvert constructed beneath the Ramona Expressway. Riprap was placed in the drainage ditch immediately across from the culvert opening to prevent lateral erosion onto the site and channel storm water to the existing culvert beneath the Ramona Expressway. This culvert appeared to be crushed, completely filled and not functioning.

Jurisdictional Considerations

Waters, including wetlands, that meet the definition of USACE Waters of the United States are not present on this site.

The Santa Ana RWQCB is responsible for the administration of Section 401 of the Clean Water Act. In general, RWQCB jurisdiction usually coincides with the USACE Waters of the United States, including any wetlands. As waters and wetlands jurisdictional to the USACE are not present on the site, they are also not under the jurisdiction of the Santa Ana RWQCB.

As the bed and banks of a stream channel and associated wildlife and habitats as per California Fish and Game Code Sections 1600-1616 are not present on this site, CDFW jurisdiction is not present there. The RWQCB may also assert jurisdiction over Waters of the State pursuant to the Porter-Cologne Act. As waters jurisdictional to CDFW are not present on the site, they are also not under the jurisdiction of the Santa Ana RWQCB.

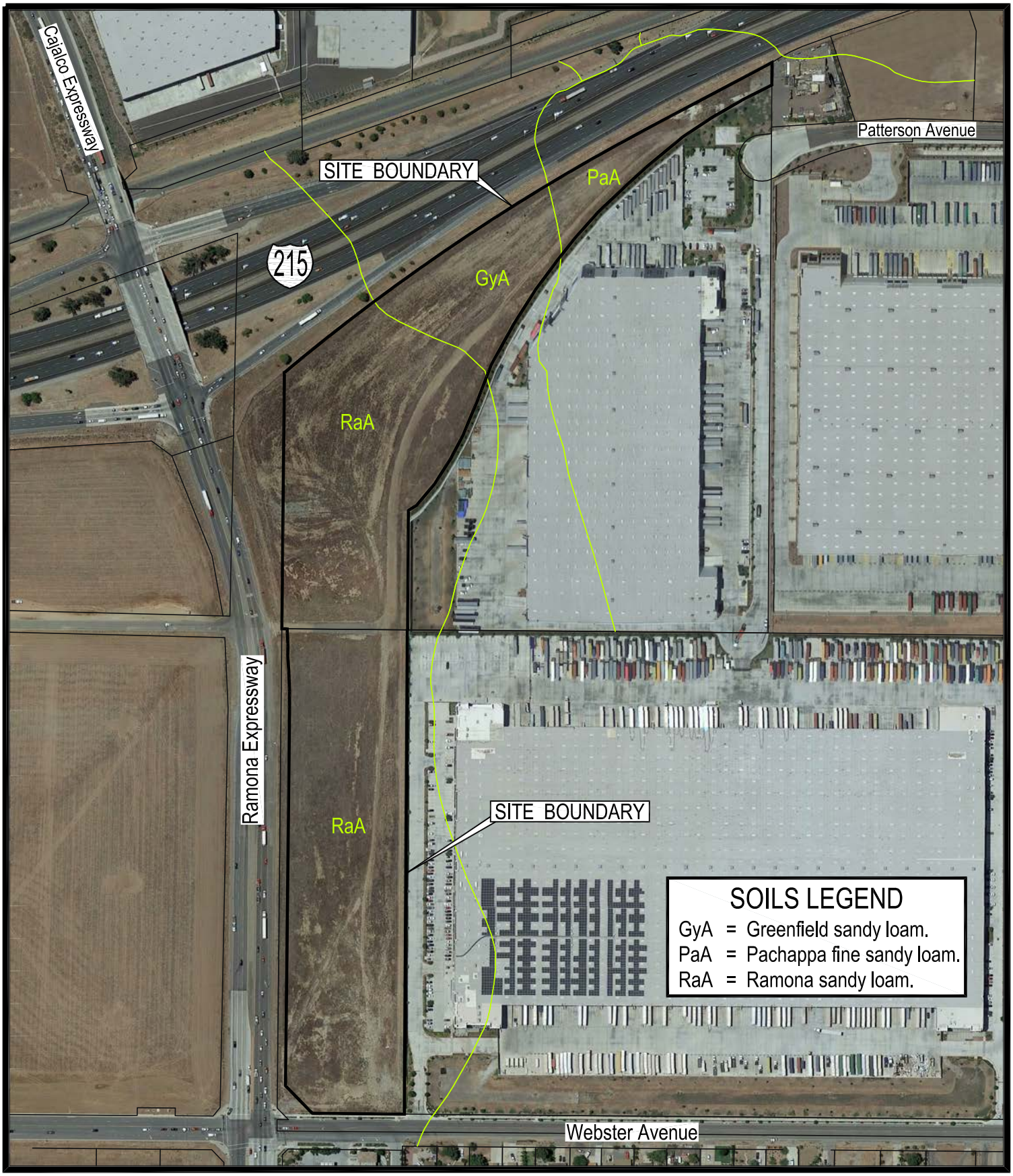
2.3 Soils

Review of the "Soil Survey of Western Riverside Area, California" revealed that the surficial soils at the site are included in the Hanford-Tujunga-Greenfield Association (Soils of the Southern California Coastal Plain). Within this association, three soil types have been mapped at the site **(Soils Map)**:

- GyA – Greenfield sandy loam, 0 to 2 percent slopes
- PaA - Pachappa fine sandy loam, 0 to 2 percent slopes
- RaA – Ramona sandy loam, 0 to 2 percent slopes

2.4 Vegetation Associations and Species Composition

Based on the Habitat Accounts described in Volume 2 of the MSHCP, the Vegetation Association occurring on the site is classified as Grasslands (20.28 acres) **(Biological Resources Map)**. The total area surveyed was ±25 acres. The surveys included all areas located between the site's property lines and the Ramona Expressway, the northbound onramp of the I-215 Freeway and the existing industrial buildings located to the north.



Source of Aerial Photo: Google Earth 5-2023

Scale: 1"= 340'

0 340 680 Feet

SOILS MAP

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

Source of Aerial Photo: Google Earth 5-2023

Scale: 1"= 340'

0 340 680 Feet

BIOLOGICAL RESOURCES MAP

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

The **Grasslands Vegetation Association** occurs throughout most of Western Riverside County, and covers approximately 11.8% (154,421 acres) of the Plan Area. The **Non-native grasslands Vegetation Subassociation** is growing on the site. Non-native grasslands occur throughout the majority of the Plan Area (11.6%), usually within close proximity to urbanized or agricultural land uses.

Non-native grasslands are primarily composed of annual grass species introduced from the Mediterranean basin and other Mediterranean-climate regions with variable presence of non-native and native herbaceous species. Species composition of Non-native grasslands may vary over time and place based on grazing or fire regimes, soil disturbance and annual precipitation patterns. Non-native grasslands typically produce deep layers of organic matter which is inversely related to the abundance of non-native and native forbs. Non-native grasslands also typically support an array of annual forbs. Low abundances of native species are sometimes present within Non-native grasslands.

Non-native grasslands cover the entire surface of the site. It is growing in all previously disturbed areas. The eastern portion of the site was recently mowed/disced, and the vegetation is sparse. The ground covering is dense in the areas located in the western portion of the site. Most of it is dominated by common and widespread non-native annual grass and weed species, but a few native annual and wildflower species were also present. Species composition of the onsite Non-native grasslands and the habitat it provides are not considered to be significant biological resources.

Dicot species include *Italian thistle *(Carduus pycnocephalus),* *yellow star-thistle *(Centaurea solstitialis),* *stinkwort *(Dittrichia graveolens),* *prickly lettuce (*Lactuca serriola*), *common groundsel (*Senecio vulgaris),* *stink-net (*Oncosiphon piluliferum*), *common sow-thistle *(Sonchus oleraceus),* *shortpod mustard *(Brassica geniculata),* *Sahara mustard *(Brassica tournefortii),* *London rocket (*Sisymbrium irio*), *five-hook bassia *(Bassia hyssopifolia),* *nettle-leaved goosefoot *(Chenopodium murale),* *spotted spurge *(Euphorbia maculate),* *Russian-thistle *(Salsola tragus),* *Spanish clover (*Lotus purshianus),* *sourclover *(Melilotus indicus),* *long-beak filaree *(Erodium botrys),* *cheeseweed (*Malva parviflora*), *common knotweed *(Polygonum arenastrum),* *wand mullein (Verbascum virgatum), and Mediterranean tamarisk *(Tamarix ramosissima)*.

Monocot species include *wild oat *(Avena sativa),* *common ripgut grass *(Bromus diandrus),* *red brome (*Bromus madritensis* subsp. *rubens*), *hare barley (*Hordeum murinum* subsp. *leporinum*), *annual bluegrass *(Poa annua),* and *Mediterranean schismus (*Schismus barbatus*).

Native forbs are uncommon, and most of the woody species are limited to a single plant or only a few. Species include annual burweed *(Ambrosia acanthicarpa),* coastal sagebrush *(Artemisia californica),* tarragon *(Artemisia dracunculus),* mule fat *(Baccharis salicifolia),* broom baccharis *(Baccharis sarothroides),* common sand aster *(Corethrogyne*

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*Denotes non-native species throughout the text
Nomenclature after Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004.

filaginiflolia var. *bernardina),* brittlebush *(Encelia farinosa),* western sunflower (*Helianthus annuus*), telegraph weed (*Heterotheca grandiflora*), coastal goldenbush *(Isocoma menziesii* var. *vernonioides),* virgate wreath-plant *(Stephanomeria virgata* subsp. *virgata),* and common fiddleneck (*Amsinckia menziesii* var*. intermedia*).

2.5 Wildlife Species Observed

An extremely low abundance and diversity of wildlife was observed at the site. The obvious reason is due to the location of the site confined between major transportation corridors and large industrial buildings. The wildlife species composition consisted of common and opportunistic species that are adapted to exploit available non-native habitats and resources located in close proximity to developed areas when native habitats are not present. Species observed included one butterfly, common white (*Pieris protodice),* grasshoppers, one lizard, side-blotched lizard *(Uta stansburiana),* and two birds, western kingbird *(Tyrannus verticalis),* and house finch *(Carpodacus mexicana).*

Diagnostic animal signs were limited to a few Botta's pocket gopher mounds *(Thomomys bottae),* California ground squirrel burrows *(Spermophilus beecheyi)* and domestic dog scat *(Canis lupus familiaris).*

2.6 Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, by human disturbance, or by the encroachment of urban development. The fragmentation of natural habitat creates isolated 'islands' of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely impact genetic and species diversity. Wildlife movement corridors can often mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby allowing depleted populations to be replenished, (2) providing escape routes from fire, predators and human disturbances, thus reducing the risk that catastrophic events such as fire or disease will result in population or local species extinction, and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three categories: (1) dispersal (defined as juvenile animals moving from natal areas and individuals extending range distributions), (2) seasonal migration and (3) movements related to home range activities such as foraging for food or water, defending territories or searching for mates, breeding areas or cover. A number of terms have been used in various wildlife movement studies such as wildlife corridor, travel route, habitat linkage, and wildlife crossing, to refer to areas in which wildlife move from one area to another.

Wildlife Movements on the site

The site is not providing a wildlife movement corridor for juvenile animal dispersals, seasonal migrations, foraging movements for food or water, and/or for searching for mates, breeding areas or cover through this portion of Perris. It is located adjacent to

Ramona Expressway and the northbound onramp to the I-215 Freeway that experience a constant high volume of truck traffic transporting materials from all the distribution facilities operating in the immediate vicinity. Also, the site does not provide a connection between two or more MSHCP core areas, habitat blocks or linkages that would otherwise be fragmented or isolated from one another if development occurred at this site. It does not currently contain suitable cover, food or water for species to survive at the site and facilitate movement within a corridor. Therefore, future development at the site will not interfere with the movements of native wildlife species, established native wildlife corridors or uses of native wildlife nursery sites.

SECTION 3. MSHCP CONSISTENCY ANALYSIS

3.1 Western Riverside County MSHCP

Based on the final Western Riverside County MSHCP (adopted June 17, 2003), the three parcels of land comprising the project site are 'Not A Part' of cell criteria under the MSHCP. The project is not then located within a Cell, Cell Group or Sub Unit of the Mead Valley Area Plan.

The site is located approximately 4.6 miles northwest of the most proximate Western Riverside County Regional Conservation Agency (RCA) Conserved Lands located along a reach of the San Jacinto River. The site is also located approximately 1.75 miles west of the most proximate MSHCP Public/Quasi-Public (PQP) Conserved Lands located along a portion of the Perris Valley Storm Drain.

3.2 Project Relationship to MSHCP Reserve Assembly

As stated above, the site is not located within a designated Cell, Cell Group or Sub Unit of the Mead Valley Area Plan. Therefore, conservation has not been described for this site.

The site is located approximately 0.8 miles northeast of the closest existing MSHCP Criteria Area - Cell #2334 of an independent Cell in the Motte/Rimrock Sub Unit (SU1) of the Mead Valley Area Plan:

> "Conservation within Cell #2334 will contribute to the assembly of Proposed Noncontiguous Habitat Block 4. Conservation within this Cell will focus on assembly of coastal sage scrub habitat. Areas conserved within this Cell will be connected to the coastal sage scrub habitat proposed for conservation in Cell Group A to the south. Conservation within this Cell will be approximately 5% of the Cell focusing in the southern portion of the Cell."
>
> "Proposed Noncontiguous Habitat Block 4 is comprised of the Motte Rimrock Reserve. It provides Habitat for a number of Planning Species, including Quino checkerspot butterfly, coastal California gnatcatcher, and Stephens' kangaroo rat. Maintenance of large intact interconnected habitat blocks is important for these species. As shown in the table below, areas not affected by edge total approximately 920 acres of the total

1,150 acres occupied by this habitat block. Since this habitat block may be affected by edge, treatment and management of edge conditions will be necessary to ensure that it provides Habitat and movement functions for species using this habitat block as planned adjacent land uses are developed along the edge. Guidelines Pertaining to Urban/Wildlands Interface for the management of edge factors such as lighting, urban runoff, toxics, and domestic predators are presented in Section 6.1 of this document. Activities associated with proposed adjacent land uses such as fire, fire suppression, off-road vehicle use and landscaping with exotic invasive species may be harmful to Stephens' kangaroo rat."

The site is located approximately 1.35 miles northeast of the southern portion of Cell #2334 where conservation within this Cell will contribute to the assembly of Proposed Noncontiguous Habitat Block 4. The site does not have a direct relationship to the assembly of Proposed Noncontiguous Habitat Block 4.

Planning Species (- required habitats):

- Bell's sage sparrow - Coastal Sage Scrub dominated by coastal sagebrush and Chaparral dominated by chamise
- Cactus wren - Coastal Sage Scrub or desert scrub with thickets of prickly pear or cholla cactus
- Coastal California gnatcatcher - Riversidean Sage Scrub, Alluvial Sage Scrub and Coastal Sage-Chaparral Scrub
- Stephens' kangaroo rat - Annual and perennial grasslands and Coastal Sage Scrub with sparse canopy cover and gently-sloping topography
- Long-spined spine flower - Chaparral, Coastal Sage Scrub, Valley and Foothill Grassland, and meadows on clay soils

Required habitats for all five Planning Species are not present on this site.

Biological Issues and Considerations:

- Conserve clay soils supporting Long-spined spine flower -
  clay soils have not been mapped at this site
- Conserve existing populations and Habitat of the Coastal California gnatcatcher -
  an existing population or required habitats for Coastal California gnatcatcher are not present on this site
- Conserve and manage small key population of Stephens' kangaroo rat -
  a population of Stephens' kangaroo rat is not present on this site

3.3 MSHCP Implementation Structure

In addition, Section 6.0 of the MSHCP, the MSHCP Implementation Structure, imposes all other terms of the MSHCP, including but not limited to the protection of species associated with riparian/riverine areas and vernal pools, narrow endemic plant species, urban/wildlands interface guidelines, and additional survey needs and procedures set forth in Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4.

Section 6.1.1 - Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS)

As stated above, the site is not located within an area that has been identified in the MSHCP as an area where conservation potentially needs to occur. As such, a HANS Application will not then have to be reviewed by City of Perris Planning Department staff pursuant to the MSHCP and the City's General Plan.

The project is consistent with Section 6.1.1 of the MSHCP

Section 6.1.2 - Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

Riparian/Riverine Areas

Natural watercourses with associated riparian vegetation and habitat are not located on the site. Therefore, there are no biological resources present on the site that meet the MSHCP definition of Riparian/Riverine Areas: *"lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year".* Therefore, the biological functions and values of Riparian/Riverine Areas do not exist. Suitable riparian/riverine habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP are not present there.

Vernal Pools

The biological functions and values of Vernal Pools do not exist on the site. The site has been continuously disturbed for decades. Kinds of natural-occurring or manmade aquatic features that could provide suitable habitats for endangered and threatened species of fairy shrimp are not present on the site (*e.g.,* wetlands, vernal pools, vernal pool-like ephemeral ponds, stock ponds, other human-modified depressions like borrow pits, tire ruts, cement culverts, etc.). Therefore, suitable habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP are not present there.

Wetlands

Section 404 of the Clean Water Act has established a program to regulate the discharge of dredged or fill material into wetlands. Wetlands are defined in USACE 33 CFR § 328.3 as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Other kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands as defined by Section 404 of the Clean Water Act are not present on the site (*e.g.,* swamps, marshes, bogs, wet meadows and pastures; springs and seeps, etc.). The site does not have a direct relationship to existing wetland regulations.

The project is consistent with Section 6.1.2 of the MSHCP

Section 6.1.3 - Protection of Narrow Endemic Plant Species

The site is not located within a Rough Step 3 **Narrow Endemic Plant Species Survey Area**.

The project is consistent with Section 6.1.3 of the MSHCP

Section 6.1.4 - Guidelines Pertaining to the Urban/Wildlands Interface

As stated above, the site does not have a direct relationship to the assembly of Proposed Noncontiguous Habitat Block 4. The site is located approximately 0.8 miles northeast of the closest MSHCP Criteria Area - Cell #2334 of an independent Cell Group in the Motte/Rimrock Sub Unit (SU1) of the Mead Valley Area Plan. As a 250-foot buffer is used in the MSHCP to complete an edge analysis, development at the site will not be subjected to the treatment and management of edge conditions necessary to ensure that it provides habitat and movement functions for species using Proposed Noncontiguous Habitat Block 4 as planned adjacent land uses are developed along its edge. The project will not then be subject to the Guidelines Pertaining to the Urban/Wildlands Interface such as lighting, urban runoff, toxics, and domestic predators as presented in *Section 6.1.4 of the MSHCP, Volume 1, The Plan.*

The Guidelines Pertaining to the Urban/Wildlands Interface are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area, where applicable. Prior to the approval of any project, the City of Perris will issue a list of conditions that must be satisfied. Existing local regulations are generally in place that address the same issues presented in the Guidelines Pertaining to the Urban/Wildlands Interface section of the MSHCP. Specifically, the City of Perris has an approved General Plan, Building Codes and Zoning Ordinances and polices that include mechanisms to regulate the development of land. In addition, project review and impact mitigation that are currently provided through the California Environmental Quality Act process also addresses the same issues that regulate land development. Therefore, a project will not be approved that would result in significant impacts on biological resources.

The project is consistent with Section 6.1.4 of the MSHCP

Section 6.3.2 - Additional Survey Needs and Procedures

The site is not located in a Rough Step 3 Survey Area where additional surveys are needed for **Amphibian, Burrowing Owl, Mammal, Narrow Endemic Plant, Criteria Area, or Invertebrate Species** in conjunction with MSHCP implementation in order to achieve coverage for these species. Also, the site is not located in a Special Linkage Area.

The project is consistent with Section 6.3.2 of the MSHCP

Section 6.4 - Fuels Management

Fuels management focuses on hazard reduction for humans and their property. Fuels management for human safety must continue in a manner that is compatible with public safety and conservation of biological resources. Fuels management for human hazard reduction involves reducing fuel loads in areas where fire may threaten human safety or property, suppressing fires once they have started, and providing access for fire suppression equipment and personnel. It is recognized that brush management to reduce fuel loads and protect urban uses and public health and safety shall occur where development is adjacent to the MSHCP Conservation Area.

The site is not located adjacent to a MSHCP Conservation Area. Based on existing fuels management policies, fuels management will not be required for future land uses on the site. Mass grading to develop the project will result in the removal of the existing Non-native Grasslands growing on the site that could threaten human safety or property during a fire.

The project is consistent with Section 6.4 of the MSHCP

SECTION 4. THRESHOLDS OF SIGNIFICANCE

Thresholds of Significance are used by public agencies in the determination of the significance of environmental effects. A Threshold of Significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. In general, exceeding Thresholds of Significance means the effect will be determined to be significant by the agency, while deceeding Thresholds of Significance means the effect will be determined to be less than significant.

Impacts on biological resources resulting from the proposed project will be based on the following **Levels of Significance:**

- ***Potentially Significant Impact*** applies where a project is one that has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or wildlife community, or (5) reduce the number or restrict the range of an endangered, rare or threatened Species (CEQA Section 15065(a)).

- ***Less Than Significant Impact with Mitigation Measures Incorporated*** applies where a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect on biological resources, and/or would mitigate the significant effect to a point where clearly no significant effect on biological resources would occur.

- ***Less Than Significant Impact*** applies where the project creates no significant impact on biological resources.

- ***No Impact*** applies where a project does not create an impact on biological resources.

The Levels of Significance are then applied to a checklist of questions addressing biological resources to be answered during the initial assessment of a project. The impacts on biological resources resulting from the proposed project have been analyzed and used to answer the checklist of questions on Thresholds of Significance.

Threshold BIO A - Will the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Answer: Less Than Significant Impact with Mitigation Measures Incorporated

Prior to beginning of the field surveys, a literature review was completed to determine locations and species of plants and wildlife that have the potential to occur on the site or in the vicinity of the site. The MSHCP list of Covered Species was examined, as well as the list of Planning Species from the Mead Valley Area Plan. The CDFW California Natural Diversity Database (CNDDB) Natural Heritage Program, RareFind, was consulted for plant and wildlife species that have been recorded within three miles of the site. USFWS Federal register listings, protocols, and species data and a review of the California Native Plant Society sixth inventory and *The Vascular Plants of Western Riverside County, California, An Annotated Checklist* were also reviewed for pertinent information regarding the location of known occurrences of sensitive species in the vicinity of the property. Using those database sources, site-specific plant and wildlife lists were compiled.

Two Federal-, State-, and CNPS-Listed Plant Species have been reported to occur within the Perris quadrangle from one-to-three miles of the site, including long-spine spineflower and smooth tarplant. Based on required growing habitats and geographic ranges, the two plant species were determined to be either absent or to have no probability to occur at this site. No additional field surveys are necessary to determine their presence or absence.

Thirteen Federal- and State-Listed Wildlife Species have been reported to occur within the Perris quadrangle from one-to-three miles of the site, including Stephens' kangaroo rat, coast horned lizard, burrowing owl, orange-throated whiptail, Los Angeles pocket mouse, California glossy snake, least Bell's vireo, western mastiff bat, northern red-diamond rattlesnake, Southern California rufous-crowned sparrow, coastal whiptail, western spadefoot toad, and coastal California gnatcatcher. Based on required habitats and geographic ranges, all thirteen wildlife species were determined to be either absent or to have no probability to occur at this site. No additional field surveys are necessary to determine their presence or absence.

The site is comprised of disturbed vegetation and habitat that is dominated by a low carpet of non-native grass and weeds. Native vegetation and habitats within site boundaries have been eliminated due to long-term disturbances associated with agricultural and weed abatement activities that have resulted in heavily disturbed and compacted soils.

The Migratory Bird Treaty Act (MBTA) of 1918 (USC 703711) is an international treaty that makes it unlawful to take, possess, buy sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). In addition, Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Marginally suitable nesting habitat for migratory birds is present on the site. The Non-native grasslands provide potential nesting habitats for ground dwelling bird species. The two bird species observed at the site are bird species governed by the MBTA, and are listed in 50 CFR Part 10. The MBTA requires that project-related disturbances at active nesting territories be reduced or eliminated during critical phases of the nesting cycle. The removal of vegetation and/or destruction of nests during the breeding season are considered potentially significant impacts. Compliance with the MBTA would reduce impacts to a less than significant level **(see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below)**.

The proposed project will not then have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Threshold BIO B - Will the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?

Answer: No Impact

Any riparian habitat or other sensitive natural community are not present at the site.

The proposed project will not then have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service.

Threshold BIO C - Will the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Answer: No Impact

Federally protected wetlands are not present on the site.

The proposed project will not then have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold BIO D - Will the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery areas?

Answer: No Impact

Native resident or migratory fish or wildlife species movement corridors or established native resident or migratory wildlife corridors, or native wildlife nursery areas are not present on the site.

The proposed project will not then interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery areas.

Threshold BIO E - Will the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Answer: No Impact

Protected biological resources are not present on the site. Riverside County and The City of Perris land use-based conservation goals and policies are in place to protect:

- the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats;
- the groundwater aquifer, water bodies, and water courses, including reservoirs, rivers, streams, and the watersheds located throughout the region, and to conserve and efficiently use water;
- floodplain and riparian areas, wetlands, forest, vegetation, and environmentally sensitive lands; and,

- native oak trees, specimen trees and trees with historical significance (heritage).

The proposed project will not then conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold BIO F - Will the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Answer: No Impact

The development and operation of the project has been determined to be consistent with Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4 of the MSHCP.

The site is not located within a designated Cell, Cell Group or Sub Unit of the Mead Valley Area Plan. As such, a HANS Application will not then have to be reviewed by City of Perris Planning Department staff pursuant to the MSHCP and the City's General Plan.

The biological functions and values of Riparian/Riverine Areas do not exist on this site. Therefore, suitable riparian/riverine habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP are not present there.

The biological functions and values of Vernal Pools do not exist on the site. Therefore, suitable habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP are not present there.

Kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands as defined by Section 404 of the Clean Water Act are not present on this site. The site does not have a direct relationship to existing wetland regulations.

The site is not located within a Rough Step 3 Narrow Endemic Plant Species Survey Area.

Development at the site will not be subjected to the treatment and management of edge conditions necessary to ensure that it provides habitat and movement functions for species using Proposed Noncontiguous Habitat Block 4. The project will not then be subject to the Guidelines Pertaining to the Urban/Wildlands Interface.

The site is not located in a Rough Step 3 Survey Area where additional surveys are needed for Amphibian, Burrowing Owl, Mammal, Narrow Endemic Plant, Criteria Area, or Invertebrate Species in conjunction with MSHCP implementation in order to achieve coverage for these species. Also, the site is not located in a Special Linkage Area.

The site is not located adjacent to a MSHCP Conservation Area. Based on existing fuels management policies, fuels management will not be required for future land uses on the site. Mass grading to develop the project will result in the removal of the existing Non-

native Grasslands growing on the site that could threaten human safety or property during a fire.

The proposed project will not then conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In Summary, species composition of the onsite Non-native grasslands and the habitat it provides are not considered to be significant biological resources. An extremely low abundance and diversity of wildlife was observed at the site. The site is not providing a wildlife movement corridor for juvenile animal dispersals, seasonal migrations, foraging movements for food or water, and/or for searching for mates, breeding areas or cover through this portion of Perris.

The analyses of impacts on biological resources resulting from development of the proposed project have determined that, overall, the proposed project does not create an impact on biological resources **(Biological Resources/Project Footprint Map)**. In the case of impacts on migratory birds, it was determined that the proposed project will have less than significant impacts when specific mitigation measures to reduce and/or eliminate the impacts are implemented **(see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below)**.

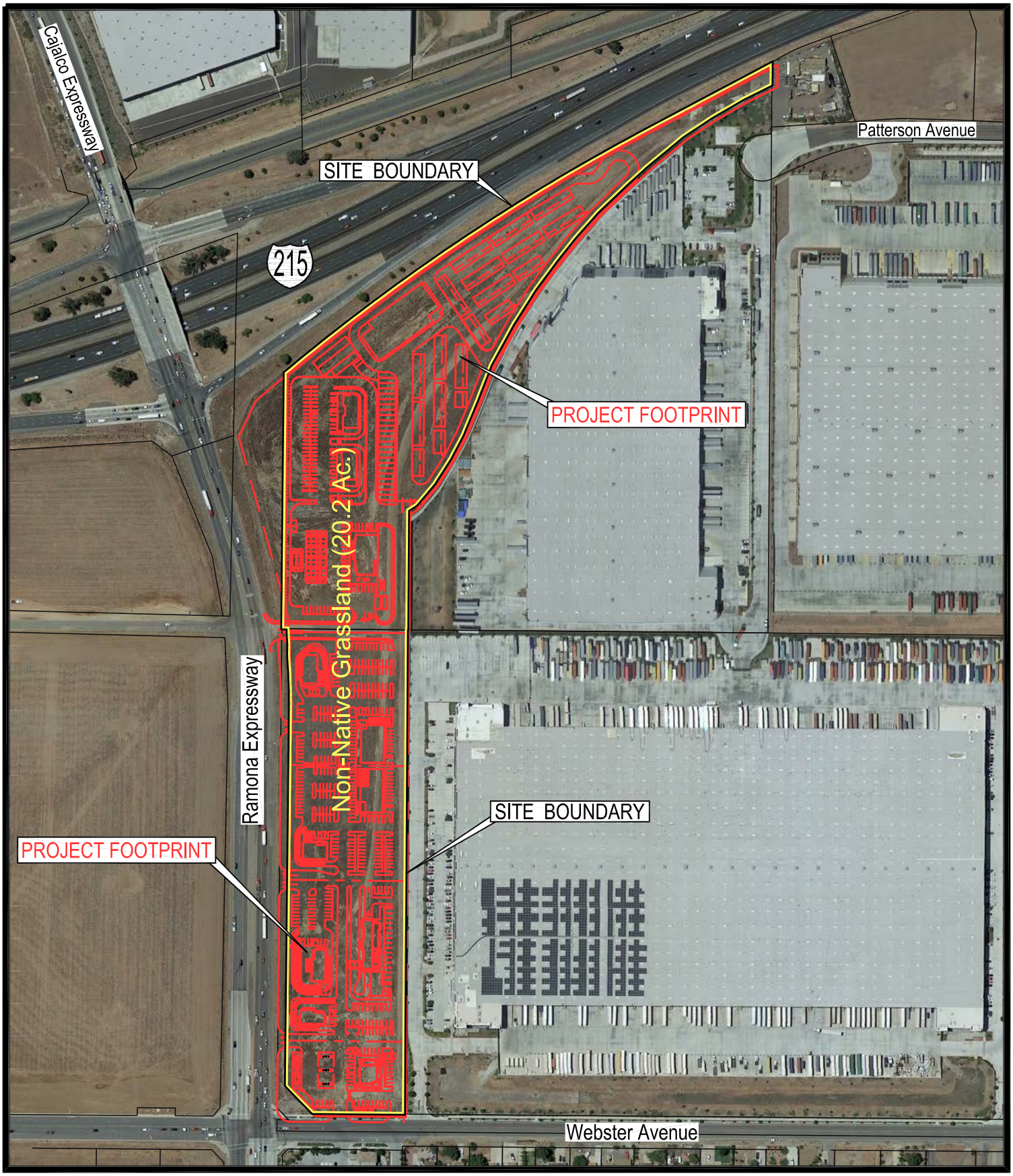
SECTION 5. PROJECT DESIGN FEATURES AND MITIGATION MEASURES THAT REDUCE IMACTS

Project Design Features

A Project Specific Water Quality Management Plan (WQMP) has been prepared for the project. It has been prepared for Compliance with Santa Ana Regional Water Quality Control Board Order No. R8-2010-0033 and any subsequent amendments thereto. This WQMP is also intended to comply with the requirements of City of Perris for Ordinance 1194 which includes the requirement for the preparation and implementation of a Project-Specific WQMP to ensure that the quantity and quality of runoff discharged off the site is not altered in an adverse way when compared with existing conditions. In particular, measures will be put in place to avoid discharge of untreated surface runoff from developed and paved areas off the site.

The Project-Specific WQMP complies with Riverside County Flood Control and Water Conservation District requirements for the 2010 Santa Ana Region, Municipal Separate Storm Sewer System (MS4) Permit. The 2010 Santa Ana MS4 Permit further requires that Low Impact Development (LID) Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. The proposed LID BMPs will be maintained by a Property Owners Association.

Project-Specific WQMP best management practices (BMPs) will be used to ensure that siltation and erosion are minimized during and after construction, and will be incorporated into the final design of the project in order to ensure that water quality is not degraded.



Source of Aerial Photo: Google Earth 5-2023

Scale: 1"= 340'

0 340 680 Feet

BIOLOGICAL RESOURCES / PROJECT FOOTPRINT MAP

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

The final design of the project will consider and comply with National Pollution Discharge Elimination System (NPDES). Optimus Building Corporation will comply by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). SWPPPs are managed by the California Water Resources Control Board. The SWPPP will develop BMPs which will also be used to ensure that siltation and erosion are minimized during construction.

Regular maintenance of the proposed BMPs will be provided by the Property Owner's Association to ensure effective operations of runoff control systems. Construction Guidelines and Standard BMPs are set forth in *Section 7.5.3 and Appendix C of the MSHCP, Volume 1*. No disturbed surfaces will be left without erosion control measures in place from October 1 through April 15.

The project will be retaining and infiltrating the post development runoff within a series of underground storage facilities located at the project site. They have been designed in a way that each parcel can be developed independently of each other. The underground storage facilities will also provide for water quality treatment through collection and infiltration. There is one area where a bio swale will be used to treat surface runoff.

The project has been designed with underground storage to offset the difference in runoff hydrograph volume between the developed and predeveloped condition for the 24-hour duration, 10-year return frequency design storm. The site soils have suitable infiltration potential greater than what is required, so infiltration will provide water quality treatment and de-watering of the underground and surface storage. In addition to the underground storage, a system of storm drains is proposed to collect and route the site runoff.

A site-specific storm drain system has also been designed and engineered for the project site. Stormwater facilities shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes located downstream and off the site. The basic concept will be that all of the storm water runoff generated by the project will be directed to water quality facilities where it will be treated.

The proposed condition for this site will be to construct a network of paved access within the site to convey storm runoff into a system of storm drains. Storm drains will be used to collect and route the runoff from the paved areas and into the surface basins or underground systems. The underground systems will infiltrate storm water for treatment.

The project will install a 36-inch reinforced concrete storm drain pipe along the Ramona Expressway to accept and route the offsite flow that meets the site at the southwest corner. The 32.6 cubic feet per second offsite flow will be carried to the east and join the existing outlet at the southeast corner of the site. There is an existing headwall and culvert under Webster Avenue. The headwall will be removed and replaced with a storm drain manhole. This 36-inch pipe will also function as the overflow path for each of the onsite underground storage facilities. This 36" RCP will also function as the ultimate outfall of the onsite storm drain. The ultimate outfall is the northeast corner of the site.

The site is within the Perris Valley Master Drainage Plan, Line E regional storm drain system. There are no further regional or offsite drainage facilities proposed.

Internal to the site, it is assumed that the underground systems will be the responsibility of a Property Owner's Association, with easements being placed to allow for City access and emergency maintenance. There are other smaller inlets, control structures, channels, and pipes that will also be the responsibility of the Property Owner's Association.

Mitigation Measures

Non-native grasslands are present on the site that have the potential to provide nesting habitat for migratory birds. Nesting activity typically occurs from February 15 to August 31. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under California Fish and Game Code Section 3503. The removal of vegetation and/or destruction of nests during the breeding season are considered potentially significant impacts. Compliance with the MBTA would reduce potential impacts to a less than significant level.

Optimus Building Corporation shall demonstrate to the satisfaction of the City of Perris Planning Department that either of the following has been or will be accomplished:

- Non-native grasslands removals shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds.

- Any construction activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) will require that the Non-native grasslands are surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected, then a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete as determined by the biological monitor to minimize impacts.

The USFWS and CDFW have issued permits pursuant to the Federal Endangered Species Act and the California Natural Community Conservation Planning Act authorizing "Take" of certain species in accordance with the terms and conditions of the acts, the Western Riverside County MSHCP and the associated Implementing Agreement. Under the acts, certain activities by the applicant will be authorized to "Take" certain species, provided all applicable terms and conditions of the acts, MSHCP and the associated Implementing Agreement are met.

With the take permits issued to the County, 118 of 146 species covered by the MSHCP will be adequately conserved. The MSHCP has addressed the Federal, State and local project-specific mitigation requirements for each of these species and their specific habitats. The MSHCP will mitigate direct, indirect and cumulative impacts resulting from the take of these 118 adequately conserved species by establishing and maintaining a

reserve system consisting of approximately 500,000 acres (347,000 acres are currently within public ownership, and 153,000 acres are currently in private ownership). Impacts to adequately conserved species will not require additional mitigation under the Endangered Species Act or the California Environmental Quality Act, but will require the following:

- In order to implement the goals and objectives of the MSHCP and to mitigate the impacts caused by new development in the unincorporated area of Riverside County, lands supporting species covered by the MSHCP must be acquired and conserved. A development fee is necessary in order to supplement the financing of the acquisition of lands supporting species covered by the MSHCP and to pay for new development's fair share of this cost. The appropriate funding source to pay the costs associated with mitigating the impacts of new development to the natural ecosystems and covered species is a fee for residential, commercial and industrial development. The amount of the fee is determined by the nature and extent of the impacts from the development to the identified natural ecosystems and the relative cost of mitigating such impacts. Optimus Building Corporation will pay the Western Riverside County MSHCP Mitigation Fee for the development of the project or portions thereof to be constructed within the County (Riverside County Ordinance 810.2).

- As the site is located within the Stephens' Kangaroo Rat Mitigation Fee Area, Optimus Building Corporation will also pay the Stephens' Kangaroo Rat Mitigation Fee (Riverside County Ordinance 663.10).

SECTION 6. CERTIFICATION STATEMENT

Date: January 15, 2024

I hereby certify that the statements furnished herein and in the attached exhibits present the data and information required for this MSHCP Consistency Analysis to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Paul A. Principe

PRINCIPE AND ASSOCIATES
Paul A. Principe
Principal

View along the site's eastern property line adjacent to Webster Avenue.Looking north to south towards the intersection of Webster Avenue and the Ramona Expressway.

SITE PHOTOGRAPH 1

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the northern portion of the site from the northwest corner. Looking west to east from Webster Avenue to the area where Nevada Road once intersected with Patterson Avenue. This portion of the site was recently mowed.

SITE PHOTOGRAPH 2

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the southern portion of the site from the southwest corner adjacent to the Ramona Expressway. Looking west to east from Webster Avenue to Nevada Road.

SITE PHOTOGRAPH 3

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the area where Nevada Road once entered the site. As the elevation of the site was lower than that of Ramona Expressway, a ramp was constructed to raise the road to the same elevation as that of Ramona Expressway.

SITE PHOTOGRAPH 4

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the northern portion of the site from west of Nevada Road. Looking west to east along the north property line adjacent to the existing Industrial buildings and landscaping. The vegetation has not been mowed in this portion of the site.

SITE PHOTOGRAPH 5

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the southwest portion of the site located adjacent to the intersection of Ramona Expressway and northbound onramp of the I-215 Freeway. The site turns to the north at a wide angle at this intersection. Looking southwest to northwest from atop of the Nevada Road ramp.

SITE PHOTOGRAPH 6

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the west central portion of the site from the west property line located adjacent to the freeway onramp. Looking south to north through the overgrown Non-native grassland vegetation.

SITE PHOTOGRAPH 7

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

View of the narrow north corner of the site located between the industial property on the east and the I-215 onramp on the west. Looking south to north from the center of the site.

SITE PHOTOGRAPH 8

PERRIS GATEWAY

PRINCIPE AND ASSOCIATES

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July 9, 2024 08054.00004.001

Optimus Building Corporation
c/o Mike Naggar and Associates, Inc.
445 S. D Street
Perris, CA 92750

Subject: Crotch's Bumble Bee (*Bombus crotchii*) Habitat Assessment for the Perris Gateway Project

Dear Mr. Naggar:

This letter presents the results of a habitat assessment for the California Endangered Species Act (CESA) candidate species Crotch's bumble bee (*Bombus crotchii*) conducted by HELIX Environmental Planning, Inc. (HELIX) for the Perris Gateway Project (project). This report describes the methods used to perform the survey and the results.

PROJECT LOCATION

The approximately 20-acre project site is located in the northwestern portion of the City of Perris, Riverside County, California (Figure 1, *Regional Location*). It is depicted within Section 1 of Township 4 South, Range 4 West on the Perris and Steele Peak U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The project site occurs north of Ramona Expressway, west of Webster Avenue, and east of Interstate (I) 215 (Figure 3, *Aerial Photograph*).

METHODS

HELIX consulted CDFW's California Natural Diversity Database (CNDDB), Bumble Bee Watch, and iNaturalist to determine the nearest Crotch's bumble bee occurrence(s). HELIX biologist Cache Tucker conducted the habitat assessment on June 20, 2024. In accordance with the California Department of Fish and Wildlife's (CDFW) Survey Considerations for CESA Candidate Bumble Bee Species, the biologist mapped habitat alliances within the project site.[1] The habitat alliances were classified following the

[1] California Department of Fish and Wildlife. 2023. Survey Considerations for CESA Candidate Bumble Bee Species. June 6. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline. Accessed July 2, 2024.

Manual of California Vegetation.[2] The biologist recorded the estimated absolute percent cover for individual species for each habitat alliance. In addition to foraging resources, potential nesting habitat (e.g., small mammal burrows, bunch grasses, thatch, brush piles, old bird nests, and dead trees) were noted during the assessment.

LITERATURE REVIEW

No Crotch's bumble bee records were found to occur within or adjacent to the project site during the literature review. The nearest Crotch's bumble bee record in CNDDB was observed in 2020 within undeveloped hillsides, approximately 3.0 miles south of the project site.[3] The nearest record in the Bumble Bee Watch was observed in 2023 at the University of California Riverside Botanic Garden, approximately 9.0 miles northwest of the project site.[4] The nearest record in iNaturalist was observed in 2024 within undeveloped land west of I-215, approximately 1.5 miles northwest of the project site.[5] Based on the observation timing (March), this observation likely represents a wandering queen searching for a suitable nest site, given that the queen flight season is February through March.[6]

RESULTS

The project site consists of disturbed vacant land that was previously used for agriculture (dry farming). The plant species diversity on the project site is limited and consists mostly of non-native annual species as a result of dry farming, regular discing, and surrounding development. Based on the habitat mapping, disturbed habitat dominated by bare ground, stinknet (*Oncosiphon pilulifer*), and wild oats (*Avena* sp.) is the only habitat type on the property (Table 1, *Species Composition by Mapped Alliance*). The disturbed habitat did not translate to a habitat alliance and was left as disturbed habitat on the vegetation map. Ten ground squirrel (*Otospermophilus beecheyi*) burrows were noted on the project site, which could potentially be used as nesting habitat if sufficient foraging resources occurred on-site or nearby to support a colony.

---

[2] Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. Available at: http://vegetation.cnps.org/. Accessed July 2, 2024.

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[5] iNaturalist. 2024. Explore Observation, Crotch's Bumble Bee. Available from: https://www.inaturalist.org/observations?place_id=158630&subview=map&taxon_id=271451. Accessed July 2, 2024.

[6] California Department of Fish and Wildlife. 2023. Survey Considerations for CESA Candidate Bumble Bee Species. June 6. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline. Accessed July 2, 2024.

Table 1
SPECIES COMPOSITION BY MAPPED ALLIANCE[1]

Scientific Name[2]	Common Name	Percentage	Flowering Status
Disturbed			
Avena sp.	wild oats	15	Dead
Oncosiphon pilulifer	stinknet	15	Flower
Centaurea solstitialis	yellow-star thistle	5	Flower
Lactuca serriola	wild lettuce	5	Dead
Bromus rubens	red brome	5	Dead
Hirschfeldia incana	short-pod mustard	5	Flower
Schismus barbatus	Mediterranean grass	5	Dead
Acacia sp.	acacia	5	Seed
Cinnamomum camphora	camphor tree	5	Seed
Salsola tragus	Russian thistle	2	Flower
Sonchus oleraceus	common sow thistle	2	Seed
Amaranthus albus	tumbleweed amaranth	2	Dead
Platanus × hispanica	London plane	2	Seed
Stephanomeria sp.	wire lettuce	2	Dead
Tribulus terrestris	puncture vine	2	Flower
Bare Ground		20	-

[1] Additional species observed at less than 2 percent cover are not included in table. Species previously documented on the project site but not observed during assessment are also not included in table.
[2] Nectar species commonly used by Crotch's bumble bee (genera *Acmispon, Antirrhinum, Asclepias, Cirsium, Clarkia, Cordylanthus, Dendromecon, Ehrendorferia, Eriogonum, Eschscholzia, Euthamia, Hypericum, Keckiella, Lantana, Lupinus, Monardella, Phacelia, Salvia, Trichostema, and Vicia*) shown in **bold** (if detected).

The majority of species noted in Table 1 were either dead or in seed during the habitat assessment, with the exception of puncture vine (*Tribulus terrestris*), Russian thistle (*Salsola tragus*), short-pod mustard (*Hirschfeldia incana*), stinknet (this species is not used by larger pollinators),[7] and yellow-star thistle (*Centaurea solstitialis*). Nectar species commonly used by Crotch's bumble bee (e.g., genera *Acmispon, Antirrhinum, Asclepias, Cirsium, Clarkia, Cordylanthus, Dendromecon, Ehrendorferia, Eriogonum, Eschscholzia, Euthamia, Hypericum, Keckiella, Lantana, Lupinus, Monardella, Phacelia, Salvia, Trichostema, and/or Vicia)*) were not noted on the site, with the exception of a few scattered California buckwheat (*Eriogonum fasciculatum*) shrubs (less than one percent cover on the site).

The project site is surrounded by commercial, industrial, and residential development to the north, east, and west, and regularly disced fields to the south. These surrounding areas do not appear to support suitable Crotch's bumble bee habitat. Based on aerial review, the nearest potential suitable habitat is located 2.5 miles east of the project site (Perris Reservoir) and 1.1 miles southwest of the project site (Mead Valley).[8]

[7] California Invasive Plant Council. 2024. Plant Assessment Form, *Oncosiphon pilulifer*. Available from: https://www.cal-ipc.org/plants/paf/oncosiphon-pilulifer/. Accessed July 2, 2024.
[8] Google Earth. 2024. Aerial Imagery of the Perris Gateway Commercial Development Project, 33.845144°, -117.249241°. Aerial Imagery from February 2024. Available from: http://www.google.com/earth/index.html. Accessed July 2, 2024.

Bumble bees have an annual life cycle. Queens establish nests in the spring and produce female workers, males, and female gynes (i.e., new queens) through summer. The queen, female workers, and males die in the fall. Gynes hibernate through winter and reemerge the following spring to establish new colonies.[9] Colonies require a persistent nectar source through summer to survive. Without a succession of flowers available from spring through summer, a colony will starve and fail to reproduce new gynes.[10] Most of the species noted on the project site were either dead or in seed. Nectar species commonly used by Crotch's bumble bee were not noted on the project site, with the exception of a few California buckwheat shrubs scattered throughout the site. The surrounding areas do not include suitable habitat for Crotch's bumble bee, with the nearest potentially suitable patch of habitat located west of I-215 and over one mile southwest of the project site. Based on the limited quantity and diversity of nectar resources on the project site, lack of commonly used nectaring species, and absence of suitable adjacent habitat, the project site does not support sufficient resources to sustain a colony.

CONCLUSION

Based on the limited quantity and diversity of nectar resources on the project site and surrounding areas and a lack of known occurrences within adjacent areas, the project site does not contain habitat suitable to support Crotch's bumble bee, and focused surveys are not required.

Please contact Lauren Singleton at LaurenS@helixepi.com or Cache Tucker at CacheT@helixepi.com should you have any questions about this report.

Sincerely,

Lauren Singleton
Senior Biology Project Manager

Cache Tucker
Biologist

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Vegetation
Attachment A: Plant Species Observed
Attachment B: Representative Site Photos

[9] California Department of Fish and Wildlife. 2019. Evaluation of the Petition from the Xerces Society, Defenders of Wildlife, and the Center for Food Safety to List Four Species of Bumble Bees as Endangered Under the California Endangered Species Act. April 4. Available from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=166804&inline. Accessed July 2, 2024.

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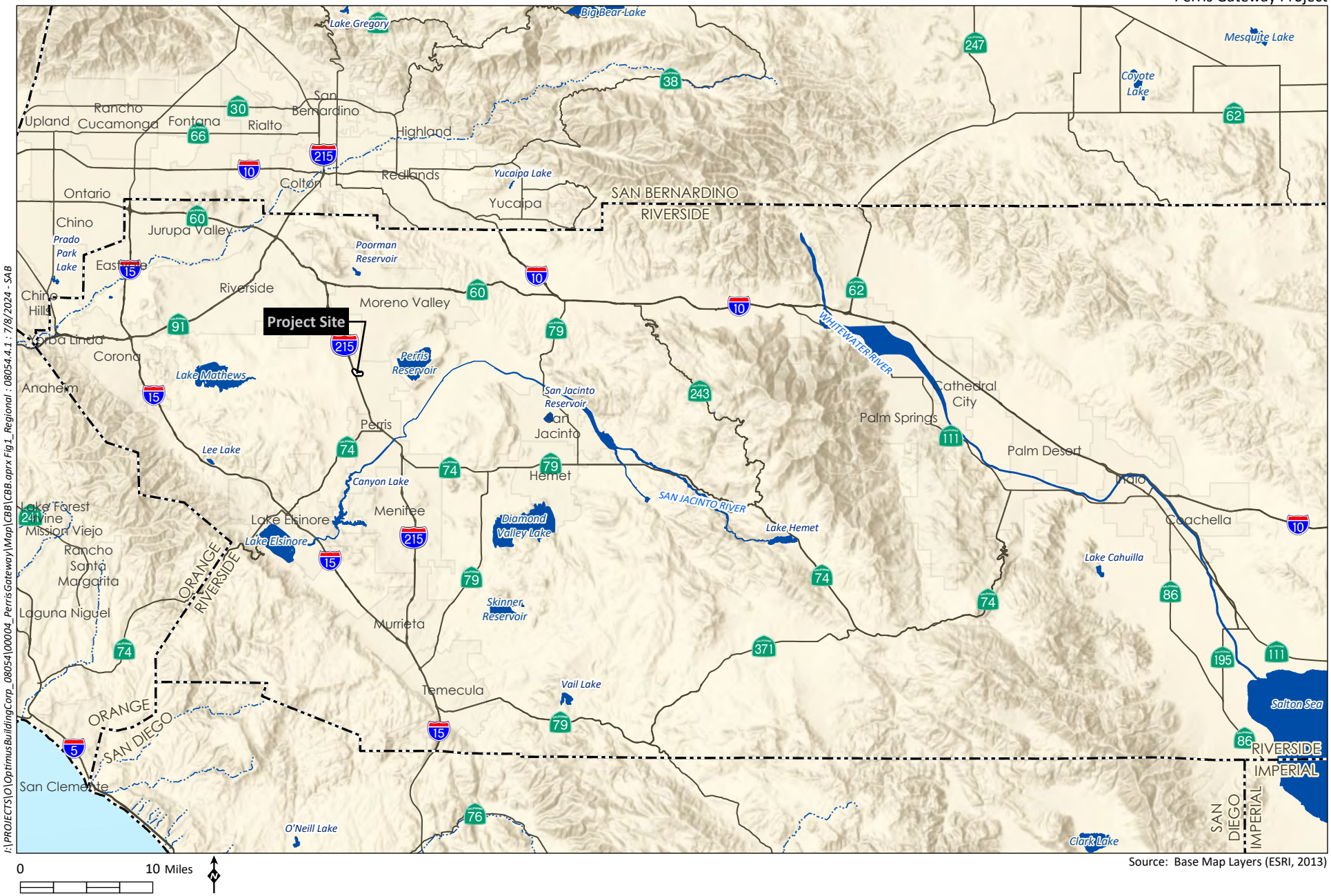

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Source: Base Map Layers (ESRI, 2013)

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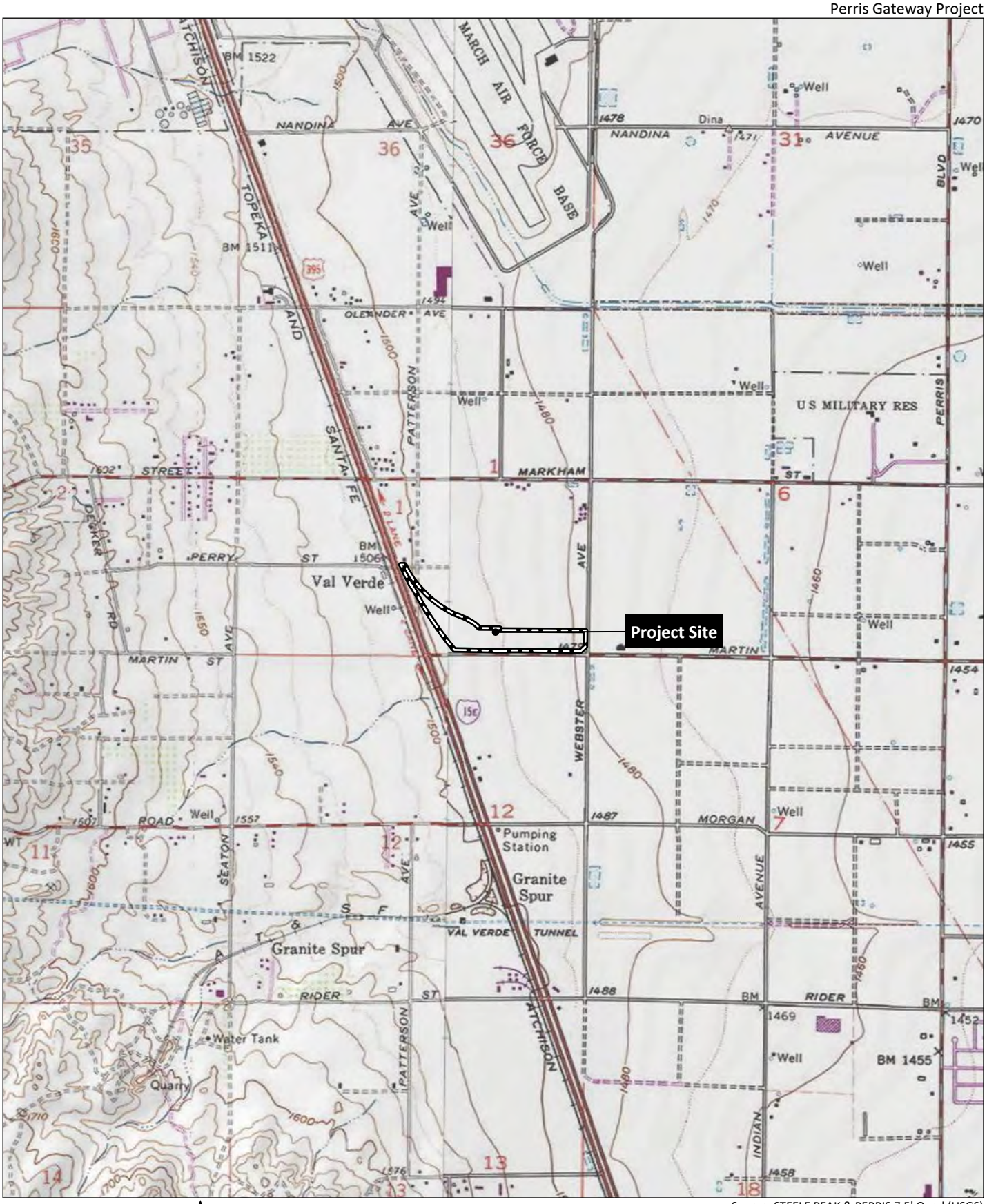
Regional Location

Figure 1



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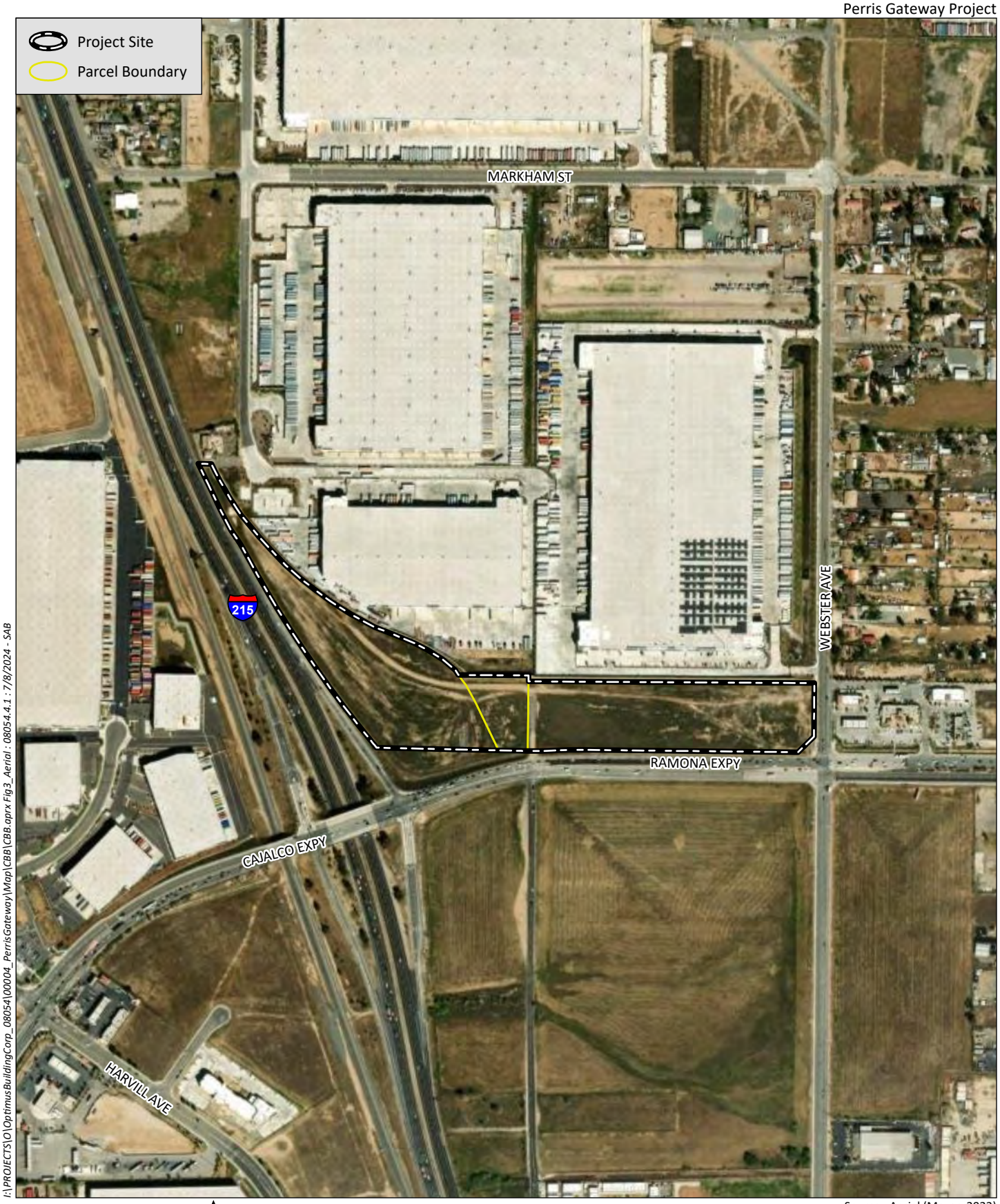
Source: STEELE PEAK & PERRIS 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



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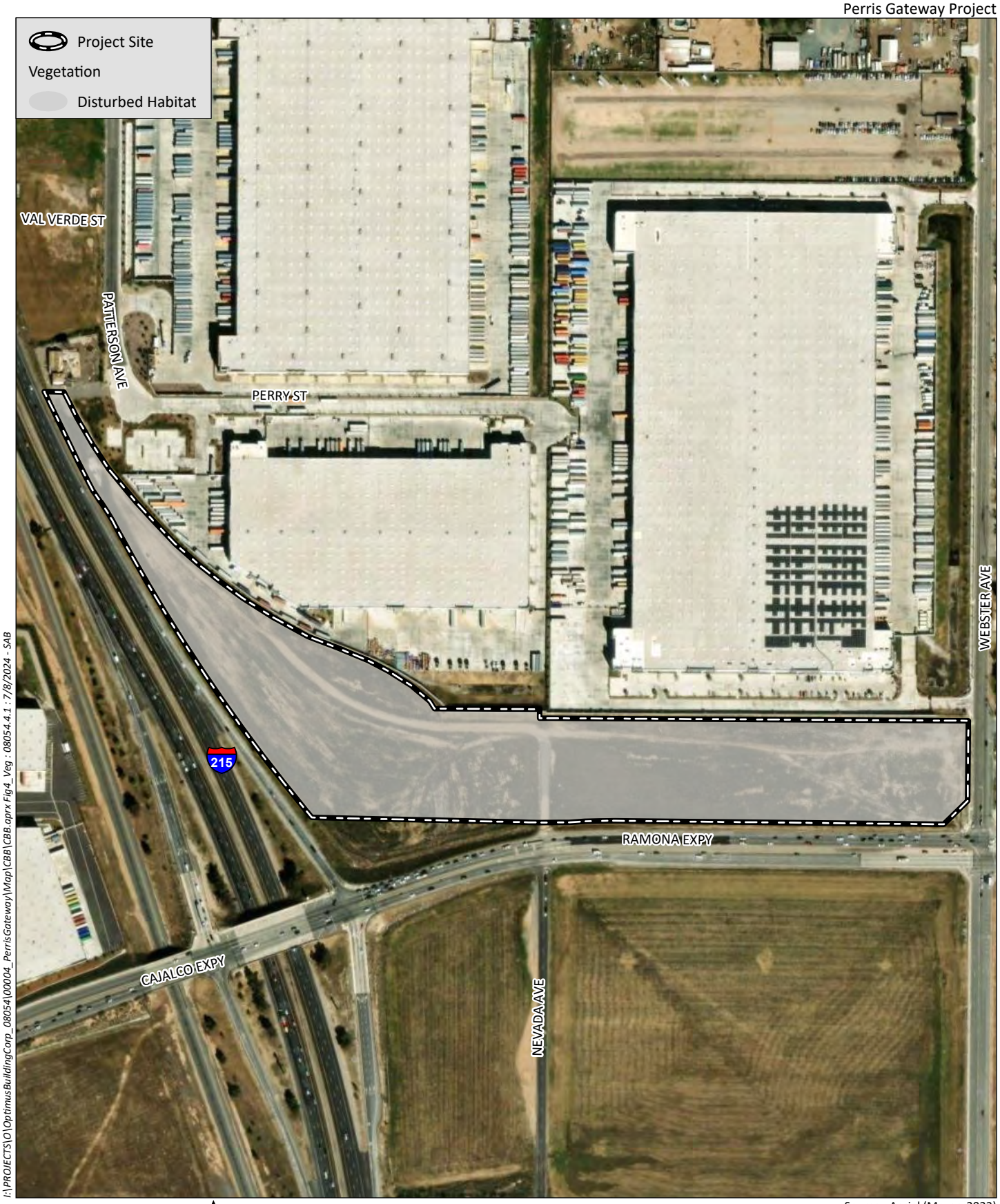
Source: Aerial (Maxar, 2022)

HELIX Environmental Planning

Aerial Photograph

Figure 3



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0 400 Feet

Source: Aerial (Maxar, 2022)

HELIX Environmental Planning

Vegetation

Figure 4

Family	Scientific Name	Common Name
ANGIOSPERMS – EUDICOTS		
Amaranthaceae	*Amaranthus albus**	tumbleweed amaranth
Asteraceae	*Baccharis salicifolia*	mule fat
	Baccharis sarothroides	broom baccharis
	*Centaurea solstitialis**	yellow-star thistle
	Eriogonum fasciculatum	California buckwheat
	Helianthus californicus	California sunflower
	Heterotheca grandiflora	telegraph weed
	Isocoma menziesii	white flowered goldenbush
	*Lactuca serriola**	wild lettuce
	*Oncosiphon piluliferum**	stinknet
	*Sonchus oleraceus**	common sow thistle
	Stephanomeria sp.	wire lettuce
Brassicaceae	*Hirschfeldia incana**	short-pod mustard
Chenopodiaceae	*Salsola tragus**	Russian thistle
Equisetaceae	*Equisetum* sp.	horsetail
Fabaceae	*Acacia sp.**	acacia
	*Melilotus albus**	white sweetclover
Fagaceae	*Quercus agrifolia*	coast live oak
Geraniaceae	*Erodium* sp.*	filaree
Lauraceae	*Cinnamomum camphora**	camphor tree
Malvaceae	*Malva parviflora*	cheeseweed
Myrtaceae	*Melaleuca* sp.*	bottle brush tree
Platanaceae	*Platanus x hispanica**	London plane
Rosaceae	*Adenostoma fasciculatum*	chamise
Solanaceae	*Nicotiana glauca**	tree tobacco
Tamaricaceae	*Tamarix ramosissima**	tamarisk
Zygophyllaceae	*Tribulus terrestris**	puncture vine
ANGIOSPERMS – MONOCOTS		
Agavaceae	*Agave americana**	American century plant
Poaceae	*Avena* sp.*	wild oat
	*Bromus rubens**	red brome
	*Schismus barbatus**	Mediterranean grass

* Non-native species

Photo 1: Disturbed habitat with scattered non-native annuals and ornamental shrubs and trees in the northeastern portion of the project site, facing northwest.

Photo 2: Disturbed habitat with scattered non-native annual species in the southwestern portion of the project site, facing northwest.

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Photo 3: Disturbed habitat with scattered non-native annual species in the southeastern portion of the project site, facing west.

Photo 4: Disturbed habitat with scattered non-native annuals in the southeastern portion of the project site, facing east.

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A PHASE I CULTURAL RESOURCES ASSESSMENT

OF

THE PERRIS GATEWAY PROJECT

APN 914-170-020; 314-180-023,024

±20.28 ACRES OF LAND IN THE CITY OF PERRIS
RIVERSIDE COUNTY, CALIFORNIA
USGS PERRIS and STEELE PEAK, CALIFORNIA QUADRANGLES, 7.5' SERIES

By

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Prepared For:

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c/o Mike Naggar and Associates, Inc.
445 S. D Street
Perris, CA 92570

October 2023

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MANAGEMENT SUMMARY

A Phase I Cultural Resources Assessment of what is currently known as the Perris Gateway project (Perris Gateway) was requested by the project sponsor, Mike Naggar and Associates, representing Optimus Building Corp. The subject property encompasses ±20.28 acres of land located west of Webster Avenue, east of the I-215 freeway, north of the Ramona Expressway, and south of Perry Street, in the City of Perris, western Riverside County. The proposed project may be developed in two phases. Phase I includes 17 storage buildings ranging in size from 2,250 square feet (sf) to 61,928 sf, a miscellaneous industrial building, a 5,951 sf Maverick gas station with car wash, and 22 fueling stations. Proposed Phase II development includes two restaurant pads measuring 6,000 sf each, four fast food restaurant pads measuring 3,000 sf, 3,000 sf, 3,400 sf, and 22000 sf, each with a drive thru, a 5,425 sf carwash, and a 4,088 sf gas station store with fueling station canopy. Anticipated City of Perris Planning cases include a Specific Plan Amendment, a Plot Plan, and Conditional Use Permits, as necessary.

The purpose of the Phase I Cultural Resources Assessment was two-fold: 1) information was to be obtained pertaining to previous land uses of the subject property through research and a comprehensive field survey, and 2) a determination was to be made if, and to what extent, existing cultural resources would be adversely impacted by the proposed project.

No cultural resources of prehistoric (Native American) or historical origin were observed within the boundaries of the Perris Gateway project during the field survey. In addition, no information has been obtained through Native American consultation that the subject property is culturally or spiritually significant and no Traditional Cultural Properties that currently serve religious or other community practices are known to exist within the project area. During the current cultural resources evaluation, no artifacts or remains were identified or recovered that could be reasonably associated with such practices.

Results of the records search conducted by staff at the Eastern Information Center on July 10, 2023, indicated that the subject property had been included at least minimally in six previous cultural resources studies and that no cultural resources have been recorded within its boundaries. The subject property is located within an exceptionally well-studied area with 70 previous cultural resource studies having been conducted within a one-mile radius, many of which included large acreages. During the course of these studies, 38 cultural resources properties have been recorded. Seventy-six percent of the recorded sites are of historical period origin, dominated by structures or the remains thereof, with the remainder comprised of resources representing irrigation or railroad features. Twenty-one percent of recorded resources are of prehistoric (Native American) origin, and all are comprised either of isolated artifacts or a

limited number of bedrock milling features. A single site (3%) has both prehistoric and historical components. Spatial distribution of recorded cultural resources in relation to distance from the Perris Gateway project is somewhat balanced, with 19% located within one-quarter mile, 19% within one-quarter to one-half mile, 16% located within a one-half to three-quarters mile radius, and 27% of sites located at least one mile from the subject property.

Archival and cartographic research indicated that a building existed at the southeastern corner of the subject property as early as 1897-1898. Inexplicably, this structure does not appear on the Riverside County Real Property Ownership Record. It may not have been the type of structure assessed for taxes, or alternatively, its construction simply may not have been reported or noticed at that time. A building with an assessed value of $100 appears on the Riverside County Real Property Ownership Record in 1902 and it is assumed that this is the same building as mapped in 1897-1898. The type of building was not specified in the records and there is no archival evidence that the owner, Mr. George W. Eldridge, ever lived on the property. The building remained on the property until 1918, with an assessed value of $80. Due to a large gap in cartographic sources between 1901 and 1942, the structure never appears cartographically after the 1901 USGS Elsinore topographic map. Aerial photographs for the 1942 USACOE Perris topographic map were taken in 1939, long after the structure apparently ceased to exist.

A second structure appears on the 1953 USGS Perris topographic map near the northwestern corner of the property, located south of Perry Street at the junction of Patterson Avenue and Hwy. 395. The building was not shown in the 1942 USACOE Riverside map or on the 1967 USGS Steele Peak Quadrangle. No information could be found regarding this structure in available archival records between 1939 and 1949. Since the aerial photographs for the 1953 USGS Steele Peak Quadrangle were taken in 1951, it is assumed that the structure was built in 1950 and ceased to exist by 1966, the date of aerial photos for the 1967 topographic map.

A search of the *Sacred Lands File* for the subject property was completed on July 19, 2023, by the Native American Heritage Commission (NAHC). Based on the provided USGS quadrangle information, the search had positive results. Project scoping letters were sent to 27 tribes listed by the NAHC as being interested in development in the Perris area. At this time, responses have been received from the Rincon Band of Luiseño Indian (July 28, 2023) and the Agua Caliente Band of Cahuilla Indians (August 3, 2023). The Rincon Band of Luiseño Indians determined that the subject property is within the Traditional Use Area of the Luiseño Indians and within their specific Area of Historic Interest (AHI). As such they are traditionally and culturally affiliated with the project area. After reviewing the provided documents and their internal information, no information is available for Rincon to share at this time. Therefore, the Tribe has no comments and does not request consultation. They recommend that local tribes be contacted as they are closer to the project and may have pertinent information. Rincon did request that a copy of the

final cultural resources report be forwarded to them. The Agua Caliente Band of Cahuilla Indians suggested that a cultural resources inventory of the project area be conducted by a qualified archaeologist prior to any development activities in the area and requested a copy of the records search, as well as copies of any cultural resource documentation generated in connection with this project.

Considering the aforementioned facts, the probability of a subsurface cultural deposit existing within the property boundaries is relatively low. The NAHC Sacred Lands File Search resulted in positive findings, based on the USGS quadrangle information provided, but responding tribes did not offer additional information regarding the subject property and did not recommend grading monitoring. Since no historical era cultural resources remain on the property and none of the responding tribes requested grading monitoring, neither further research nor archaeological monitoring is recommended. Despite not recommending archaeological grading monitoring, it is nonetheless recommended that prior to issuance of grading permits, a Riverside County/City of Perris qualified archaeologist be retained to serve as the Project Archaeologist. The Project Archaeologist shall provide preconstruction Cultural Sensitivity Training for all construction personnel, establishing required procedures and protocol in the event that cultural resources are discovered during the course of ground disturbing activities. The Project Archaeologist will also be available to investigate any buried cultural resources upon notification by the construction supervisor. Should any cultural resources be discovered during the course of ground disturbing activities, said activities should be halted or diverted until the Project Archaeologist can evaluate the resources, make a determination of their significance, and recommend appropriate treatment measures to mitigate impacts to the resources from the project, if found to be significant. If the cultural resources are of Native American origin, a representative of one of the tribes who responded to the project scoping letters shall also be notified so that they can evaluate the resource(s) and make recommendations. If human remains are encountered unexpectedly during implementation of the project, compliance with State Health and Safety Code Section 7050.5 is required, with no further disturbances to the land until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98.

INTRODUCTION

In compliance with California Environmental Quality Act (CEQA) and City of Perris Planning Department requirements, the project sponsor contracted with Jean A. Keller, Ph.D., Cultural Resources Consultant, to conduct a Phase I Cultural Resources Assessment of the subject property on June 22, 2023. The purpose of the assessment was to identify, evaluate, and recommend mitigation measures for existing cultural resources that may be adversely impacted by the proposed development.

The Phase I Cultural Resources Assessment commenced with a request submitted to staff at the Eastern Information Center, University of California, Riverside on June 23, 2023, to conduct a records search of available maps, site records, and reports. The results of the records search were received on July 11, 2023. A request for a Sacred Lands File search was also submitted to the Native American Heritage Commission June 23, 2023, with results received on July 19, 2023. Based on the provided USGS quadrangle information, the search had positive results. On July 20, 2023, project scoping letters were sent to 27 tribal representatives listed by the NAHC as being interested in project development in the Perris area. At this time, responses have been received from the Rincon Band of Luiseño Indian (July 28, 2023) and the Agua Caliente Band of Cahuilla Indians (August 3, 2023). A literature search of available publications and archival documents pertaining to the subject property followed the records and Sacred Lands File search requests. Finally, a comprehensive pedestrian field survey of the subject property was conducted on August 3, 2023, for the purpose of locating, documenting, and evaluating all existing cultural resources within its boundaries.

The proposed commercial/industrial project, currently known as Perris Gateway, may be developed in two phases. Phase I includes 17 storage buildings ranging in size from 2,250 square feet (sf) to 61,928 sf, a miscellaneous industrial building, a 5,951 sf Maverick gas station with car wash, and 22 fueling stations. Proposed Phase II development includes two restaurant pads measuring 6,000 sf each, four fast food restaurant pads measuring 3,000 sf, 3,000 sf, 3,400 sf, and 22000 sf, each with a drive thru, a 5,425 sf carwash, and a 4,088 sf gas station store with fueling station canopy (Fig. 1). Anticipated City of Perris Planning cases include a Specific Plan Amendment, a Plot Plan, and Conditional Use Permits, as necessary.

As shown on the USGS Perris and Steele Peak, California Quadrangles, the subject property encompasses ±20.28 acres of land located in Section 1, Township 4 south, Range 4 (Fig. 2). Current land use is vacant. Adjacent land uses are industrial to the north and northeast, commercial to the east, vacant to the south, and the I-215 freeway to the west. Disturbances to the subject property range from minimal to substantial, with cumulative direct impacts resulting

from road construction, agricultural endeavors, vehicular activity, grading, periodic vegetation clearance, and dumping of debris across portions of the property. Indirect impacts have resulted from the construction of buildings and roads on adjacent lands in all directions.

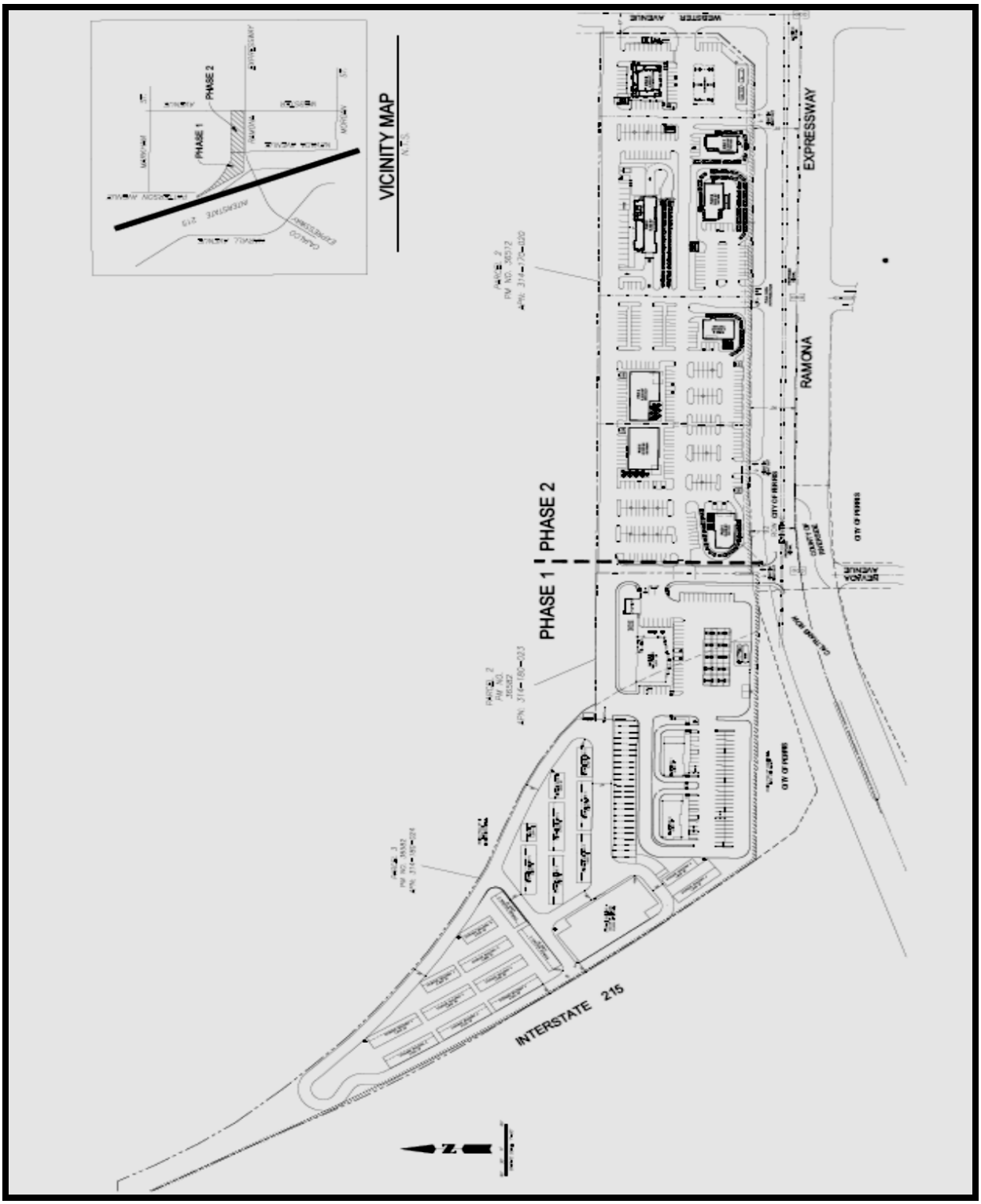


Figure 1: The Perris Gateway project (APN 914-170-020; 314-180-023, 024).

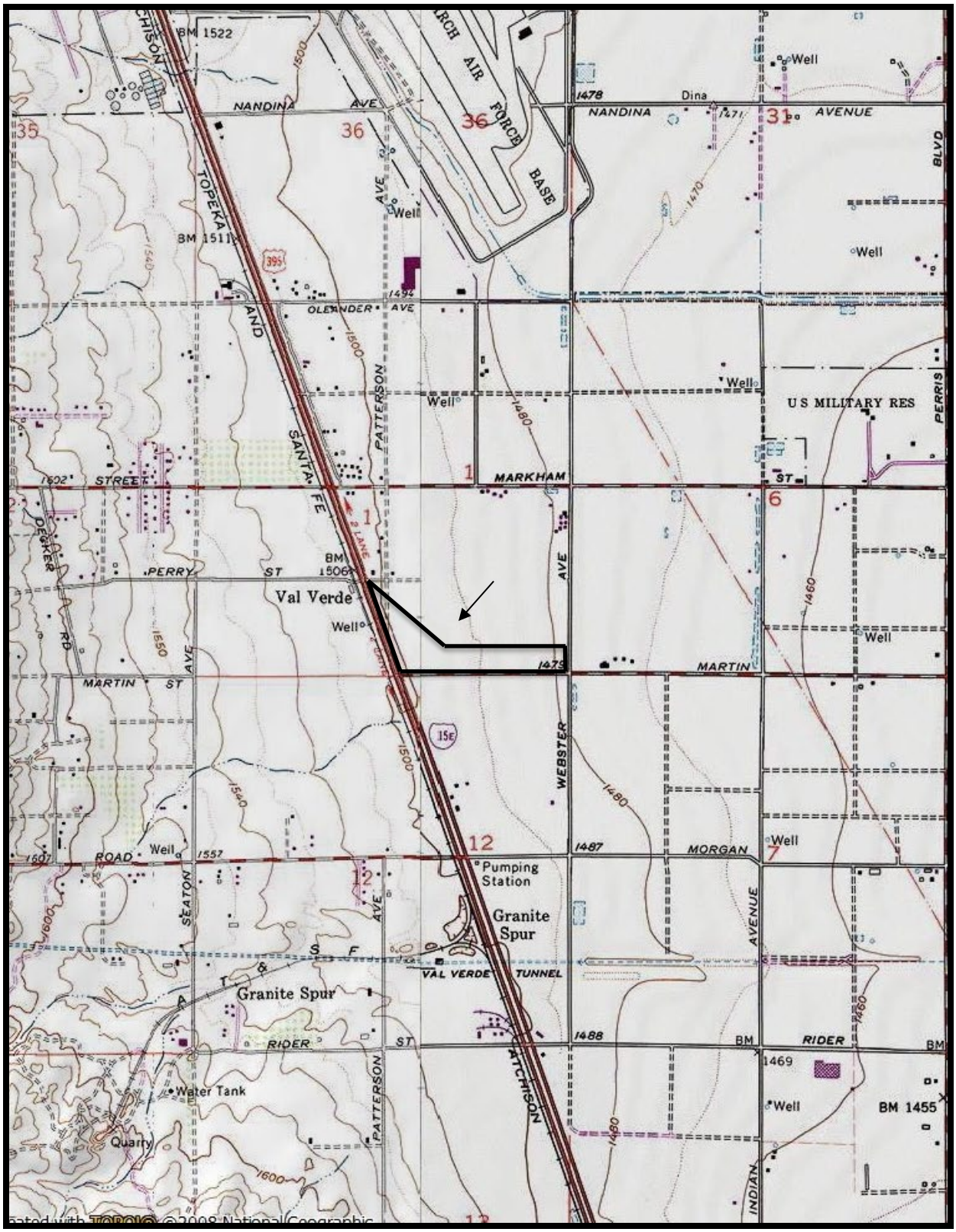


Figure 2: Location of the Perris Gateway project in the City of Perris, western Riverside County. Adapted from USGS Perris and Steele Peak, California Quadrangles, 7.5'series (1979).

ENVIRONMENTAL SETTING

Topography and Geology

The subject property is located in the City of Perris, western Riverside County. It is situated in the Perris Valley, a topographically diverse region defined by the Lakeview Mountains to the southeast, Steele Peak to the southwest, Lake Perris to the northeast, and Mockingbird Canyon to the northwest (Fig. 3). Drainage in the vicinity of the subject property has been channelized, but historically the drainage pattern has been in a southwesterly direction toward the Perris Valley and ultimately, the San Jacinto River. Drainage is intermittent, occurring only as the result of seasonal precipitation.

Topographically, the subject property is comprised of a relatively flat alluvial plain that has been somewhat modified (Fig. 4 and 5). Elevations range from a low of 1481.0 feet above mean sea level (AMSL) near the northeastern property corner, to a high of 1500.0 feet AMSL near the northwestern property corner. A permanent source of water was not observed within the property boundaries. The closest USGS-designated blueline stream is approximately one-quarter mile to the southwest, across the I-215 freeway.

The proposed project is situated in the Perris Peneplain, a portion of the Northern Peninsular Range Province of Southern California. The Perris Peneplain is a broad valley bounded on three sides by mountain ranges: the San Jacinto Mountains on the east, the San Bernardino Mountains on the north, and the Santa Ana Mountains on the southwest. The northwestern extent of the Perris Peneplain is the Santa Ana River. The Peneplain is a large depositional basin composed primarily of materials eroded from the granitic bedrock surfaces of the Southern California Batholith. The geological composition of the subject property is representative of the region as a whole, with alluvial fans and terraces formed by local granitic bedrock decomposition. Bedrock outcrops suitable for use in food processing, rock art, or shelter by indigenous peoples of the region are not present within the boundaries of the property. Loose lithic material is very sparse, and none observed would have been suitable for tool production by Native Americans who occupied this area.

Biology

As a result of past agricultural endeavors, recent vegetation clearance, and impacts resulting from development on adjacent lands, no intact native plant communities remain within the project boundaries. Identified vegetation represented a diverse mixture of native, invasive, and exotic plants. Density ranged from isolated individual plants to dense, almost impenetrable stands. Native plants included telegraph weed (*Heterotheca grandiflora*), century plant (*Agave*

Figure 3: Location of the study area relative to western Riverside County. Adapted from USGS Santa Ana, California Topographic Map (1959, photorevised 1979). Scale 1:250,000.

Figure 4: Aerial view of the subject property.

americana), common sunflower (*Helianthus annus*), desertbroom (*Baccharis sarthoides*), Menzie's goldenbush (*Isocoma menziesii*), mulefat (*Baccharis salicifolia*), California aster (*Corethrogyne filanginifolia*), and brittlebush (*Encelia farinosa*). While the invasive and exotic plants were not as diverse as the native species, they were typically more widespread, abundant, and had denser growth patterns. Identified invasive plant species included yellow star thistle (*Centaurea solstitialis*), tumbleweed (*Kali tragus*), black mustard (*Brassica nigra*), and tamarisk *Tamarix ramosissima*). The sole identified exotic plant was stinknet (*Oncosiphon piluiferum*), a ubiquitous plant found throughout Riverside County that covered most of the subject property.

Prior to cultivation, periodic vegetation clearance, and local development the subject property undoubtedly hosted representative plant species of the Coastal Sage Scrub Plant Community, which predominates in this region. Characteristic plant species of this native community include

View from the eastern property boundary looking west.

View from the southwestern property corner looking northeast.

Figure 5: Views of the subject property.

white sage (*Salvia apiana*), black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), scrub oak (*Quercus berberidifolia*), and laurel sumac (*Malosma laurina*). Indigenous peoples of the region commonly used plants of this community for food, medicine, and implement production.

During both the prehistoric and historical periods an abundance of faunal species undoubtedly inhabited the study area. However, due to regional urbanization, the current faunal community is generally restricted to those species that can exist in proximity to humans, such as valley pocket gopher (*Thomomys bottae*), Audobon's cottontail (*Sylvilagus audobonii*), California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*), western fence lizard (*Scelopous occidentalis*), and occasionally, mule deer (*Odocoileus hemionus*).

Climate

The climate of the study area is that typical of cismontane Southern California, which on the whole is warm, and rather dry. This climate is classified as Mediterranean or "summer-dry subtropical." Temperatures seldom fall below freezing or rise above 100 degrees Fahrenheit. The rather limited precipitation received occurs primarily during the summer months.

Discussion

Virtually all of the subject property has been altered by past agricultural endeavors, grading, and periodic vegetation clearance and as a result, it is difficult to determine whether adequate resources would have been available to support indigenous populations of the region. Based on resources found on undeveloped land in the vicinity, it is probable that floral and faunal resources would have offered limited opportunities to Native Americans for procuring food, as well as components for medicines, tools, and construction materials. Bedrock outcrops suitable for use in food processing, rock art, or shelter are not present within the project boundaries. Loose lithic material is very sparse, and none observed would have been suitable for ground or flaked stone tool production. It is possible that both bedrock outcrops and loose lithic materials were removed in the past to facilitate agricultural endeavors. A permanent source of water is not located within the property boundaries but is located approximately one-quarter mile to the southwest. Due to the relative lack of available natural resources and defensive locations, it is likely that the subject property would only have been utilized for seasonal resource exploitation by indigenous peoples of the region and not for long-term occupation.

Criteria for occupation during the historical era were generally somewhat different than for aboriginal occupation since later populations did not depend solely on natural resources for survival. During the historical era, the subject property would probably have been considered very desirable due to the availability of tillable soil, flat topography, and its proximity to urban centers and major transportation corridors.

CULTURAL SETTING

Prehistory

On the basis of currently available archaeological research, occupation of Southern California by human populations is believed to have begun at least 10,000 years ago. Theories proposing much earlier occupation, specifically during the Pleistocene Age, exist but at this time archaeological evidence has not been fully substantiated. Therefore, for the purposes of this report, only human occupation within the past 10,000 years will be addressed.

A time frame of occupation may be determined on the basis of characteristic cultural resources. These comprise what are known as cultural traditions or complexes. It is through the presence or absence of time-sensitive artifacts at a particular site that the apparent time of occupation may be suggested.

In general, the earliest established cultural tradition in Southern California is accepted to be the San Dieguito Tradition, first described by Malcolm Rogers in the 1920s. The San Dieguito people were nomadic large-game hunters whose tool assemblage included large domed scrapers, leaf-shaped knives, and projectile points, stemmed projectile points, chipped stone crescentics, and hammerstones (Rogers 1939; Rogers 1966). The San Dieguito Tradition was further divided into three phases: San Dieguito I is found only in the desert regions, while San Dieguito II and III occur on both sides of the Peninsular Ranges. Rogers felt that these phases formed a sequence in which increasing specialization and refinement of tool types were the key elements. Although absolute dates for the various phase changes have not been hypothesized or fully substantiated by a stratigraphic sequence, the San Dieguito Tradition as a whole is believed to have existed from approximately 7000 to 10,000 years ago (8000 to 5000 BCE).

Throughout southwestern California the La Jolla Complex followed the San Dieguito Tradition. The La Jolla Complex, as first described by Rogers (1939, 1945), then redefined by Harding (1951), is recognized primarily by the presence of millingstone assemblages within shell middens. Characteristic cultural resources of the La Jolla Complex include basined millingstones, unshaped manos, flaked stone tools, shell middens, and a few Pinto-like projectile points. Flexed inhumations under stone cairns, with heads pointing north, are also present (Rogers 1939, 1945; Warren *et al* 1961).

The La Jolla Complex existed from 5500 to 1000 BCE. Although there are several hypotheses to account for the origins of this complex, it would appear that it was a cultural adaptation to climatic warming after c. 6000 BCE. This warming may have stimulated movements to the coast of desert peoples who then shared their millingstone technology with the older coastal groups

(Moratto 1984). The La Jollan economy and tool assemblage seems to indicate such an infusion of coastal and desert traits instead of a total cultural displacement.

The Pauma Tradition, as first identified by D.L. True in 1958, may be an inland variant of the La Jolla Complex, exhibiting a shift to a hunting and gathering economy, rather than one based on shellfish gathering. Implications of this shift are an increase in number and variety of stone tools and a decrease in the amount of shell (Meighan 1954; True 1958; Warren 1968; True 1977). At this time, it is not known whether the Pauma Complex represents the seasonal occupation of inland sites by La Jollan groups or whether it represents a shift from a coastal to a non-coastal cultural adaptation by the same people.

The late period is represented by the San Luis Rey Complex, first identified by Meighan (1954) and later redefined by True *et al* (1974). Meighan divided this complex into two periods: San Luis Rey I (1400-1750 CE) and the San Luis Rey II (1750-1850 CE). The San Luis Rey I type component includes cremations, bedrock mortars, millingstones, small triangular projectile points with concave bases, bone awls, stone pendants, *Olivella* shell beads, and quartz crystals. The San Luis Rey II assemblage is the same as San Luis Rey I, but with the addition of pottery vessels, cremation urns, tubular pipes, stone knives, steatite arrow straighteners, red and black pictographs, and such non-aboriginal items as metal knives and glass beads (Meighan 1954). Inferred San Luis Rey subsistence activities include hunting and gathering with an emphasis on acorn harvesting.

Ethnography

Available ethnographic research indicates that the study area was included in the known territory of the Luiseño Indians during both prehistoric and historic times, although some Cahuilla also claim that this is their Traditional Use Area. The name Luiseño is Spanish in origin and was used in reference to those aboriginal inhabitants of Southern California associated with the Mission San Luis Rey. As far as can be determined, the Luiseño, whose language is of the Takic family (part of the Californian Uto-Aztecan linguistic stock), had no equivalent word for their nationality because they did not consider themselves to “belong to” the Spanish occupiers. The Luiseño called themselves *Atáaxum*, which means “people, and traditional songs refer to the people as *Payómkawichum*, “people of the west.” The people were also associated with their villages. For example, today the Pechanga people refer to themselves as the *Pechangayam*, “people of Pechanga.”

According to ethnographers and Luiseño oral tradition, the territory of the Luiseño was extensive, encompassing much of coastal and inland Southern California. Known territorial boundaries extended on the west to the Southern Channel Islands, to the Santa Ana River and Box Springs Mountain on the north, as far northeast as Mt. San Jacinto, to Lake Henshaw on the southeast, and to Agua Hedionda Creek on the southwest. Their habitat included every ecological zone from

sea level to 6000 mean feet above sea level. Territorial boundaries of the Luiseño were shared with the Gabrieliño and Serrano to the north, the Cahuilla to the east, the Cupeño and Ipai to the south (Fig. 6). Except for the Ipai, these tribes shared similar cultural and language traditions. Although the social structure and philosophy of the Luiseño were similar to that of neighboring tribes, they had a greater population density and correspondingly, a more rigid social structure.

The settlement pattern of the Luiseño was based on the establishment and occupation of sedentary autonomous village groups. Villages were usually situated near adequate sources of food and water, in defensive locations primarily found in sheltered coves and canyons. Typically, a village was comprised of permanent houses, a sweathouse, and a religious edifice. The permanent houses of the Luiseño were earth-covered and built over a two-foot excavation (Kroeber 1925:654). According to informants' accounts, the dwellings were conical roofs resting on a few logs leaning together, with a smoke hole in the middle of the roof and entrance through a door. Cooking was done outside, when possible, on a central interior hearth when necessary. The sweathouse was similar to the houses except that it was smaller, elliptical, and had a door in one of the long sides. Heat was produced directly by a wood fire. Finally, the religious edifice was usually just a round fence of brush with a main entrance for viewing by the spectators and several narrow openings for entry buy the ceremonial dancers (Kroeber 1925).

Luiseño subsistence was based on seasonal floral and faunal resource procurement. Each village had specific resource procurement territories, most of which were within one day's travel of the village. During the autumn of each year, however, most of the village population would migrate to the mountain oak groves and camp for several weeks to harvest the acorn crop, hunt, and collect local resources not available near the village. Hunters typically employed traps, nets, throwing sticks, snares, or clubs for procuring small animals, while larger animals were usually ambushed, then shot with bow and arrow. The Luiseño normally hunted antelope and jackrabbits in the autumn by means of communal drives, although individual hunters also used bow and arrow to hunt jackrabbits throughout the year. Many other animals were available to the Luiseño during various times of the year but were generally not eaten. These included dog, coyote, bear, tree squirrel, dove, pigeon, mud hen, eagle, buzzard, raven, lizards, frogs, and turtles (Kroeber 1925).

Small game was prepared by broiling it on coals. Venison and rabbit were either broiled on coals or cooked in an earthen oven. Whatever meat was not immediately consumed was crushed on a mortar, then dried and stored for future use (Sparkman 1908). Of all the food sources utilized by the Luiseño, acorns were by far the most important. Six species were collected in great quantities during the autumn of every year, although some were favored more than others. In order of preference, they were black oak (*Quercus kelloggii),* coast live oak *(Q. agrifolia), c*anyon live oak *(Q. chrysolepsis),* Engelmann Oak *(Q. engelmannii),* interior live oak *(Q. wislizenii),* and

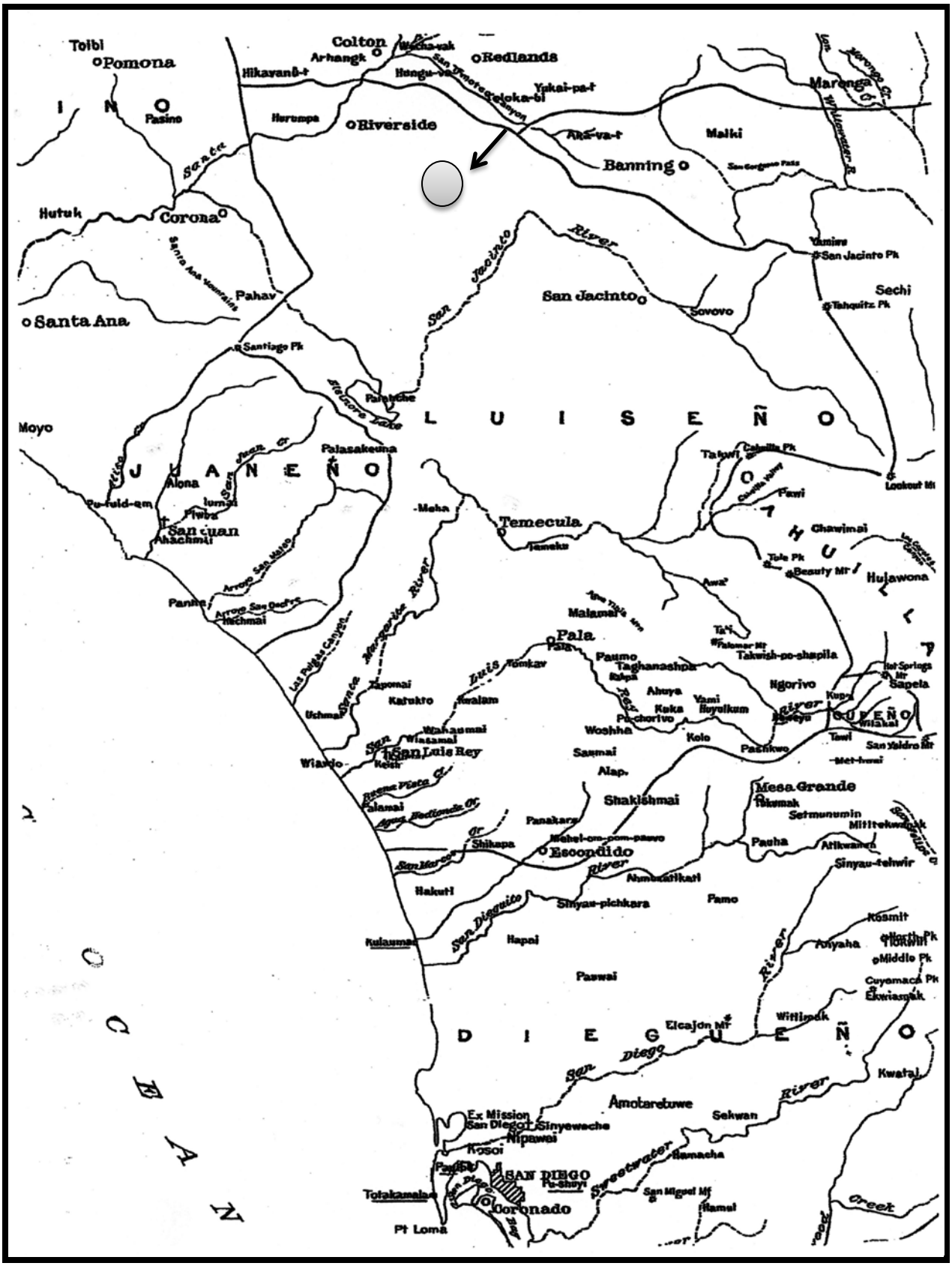


Figure 6: Ethnographic location of the study area. Adapted from Kroeber (1925).

scrub oak *(Q. berberidifoilia).* The latter three were used only when others were not available. Acorns were prepared for consumption by crushing them in a stone mortar and leaching off the tannic acid, then made into either a mush or dried to a flour-like material for future use.

Herb and grass seeds were used almost as extensively as acorns. Many plants produce edible seeds which were collected between April and November. Important seeds included, but were not limited to, the following: California sagebrush (*Artemisia californica*), wild tarragon (*Artemisia dracunculus*), white tidy tips (*Layia glandulosa*), sunflower (*Helianthus annus*), calabazilla (*Cucurbita foetidissima*), sage (*Salvia carduacea* and *S. colombariae*), California buckwheat (*Eriogonum fasciculatum*), peppergrass (*Lepidium nitidum*), and chamise (*Adenostoma fasciculatum*). Seeds were parched, ground, cooked as mush, or used as flavoring in other foods.

Fruit, berries, corms, tubers, and fresh herbage were collected and often immediately consumed during the spring and summer months. Among those plants commonly used were basketweed (*Rhus trilobata*), Manzanita (*Arctostaphylos Adans.*), miner's lettuce (*Montia Claytonia*), thimbleberry (*Rubus parviflorus*), and California blackberry (*Rubus ursinuss*). When an occasional large yield occurred, some berries, particularly juniper and manzanita, were dried and later made into a mush.

Tools for food acquisition, preparation, and storage were made from widely available materials. Hunting was done with a bow and fire-hardened or stone-tipped arrows. Coiled and twined baskets were used in food gathering, preparation, serving, and storage. Seeds were ground with handstones on shallow granitic mutates, while stone mortars and pestles were used to pound acorns, nuts, and berries. Food was cooked in clay vessels over fireplaces or earthen ovens. The Luiseño employed a wide variety of other utensils produced from locally available geological, floral, and faunal resources in all phases of food acquisition and preparation.

The Luiseño subsistence system described above constitutes seasonal resource exploitation within their prescribed village-centered procurement territory. In essence, this cycle of seasonal exploitation was at the core of all Luiseño lifeways. During the spring collection of roots, tubers, and greens was emphasized, while seed collecting and processing during the summer months shifted this emphasis. The collection areas and personnel (primarily small groups of women) involved in these activities remained unchanged. However, as the autumn acorn harvest approached, the settlement pattern of the Luiseño altered completely. Small groups joined to form the larger groups necessary for the harvest and village members left the villages for the mountain oak groves for several weeks. Upon completion of the annual harvest, village activities centered on the preparation of collected foods for use during the winter. Since few plant food resources were available for collection during the winter, this time was generally spent repairing

and manufacturing tools and necessary implements in preparation for the coming resource procurement seasons.

Each Luiseño village was a clan tribelet – a group of patrilineally related people who owned an area in common and who were both politically and economically autonomous from neighboring villages (Bean & Shipek 1978). The chief of each village inherited his position and was responsible, with the help of an assistant, for the administration of religious, economic, and warfare powers. A council comprised of ritual specialists and shamans, also hereditary positions, advised the chief on matters concerning the environment, rituals, and supernatural powers.

According to early ethnographers, the social structure of the villages was considered obscure, since the Luiseño apparently did not practice the organizational system of exogamous moieties used by many of the surrounding Native American groups. At birth, a baby was confirmed into the house-holding group and patrilineage. Girls and boys went through numerous puberty initiation rituals during which they learned about the supernatural beings governing them and punishing any infractions of the rules of behavior and ritual (Sparkman 1908). The boys' ceremonies included the drinking of toloache (*Datura*), visions, dancing, ordeals, and the teaching of songs and rituals. Girl's puberty rituals, which included "roasting" in warm sands and rock painting, were centered on how to be a contributing adult in their society and their responsibilities in the cycles of the world. Marriages did not take place immediately after puberty rituals were completed as the relationship between girls, puberty, and marriage was very complex. Children's future marriages were often arranged at birth, but as the parties became adults, relationships were reevaluated. The Luiseño were concerned that marriages not occur between individuals too closely related. Although cross-cousin marriages occurred on occasion, they were not commonly accepted. Instead, marriage was based more on clan relationships. Luiseño marriages created important economic and social alliances between lineages and were celebrated accordingly with elaborate ceremonies and a bride price. Residence was typically patrilineal. Men and women with large social responsibility often lived with multiple people and the relationships were of support for the community.

One of the most important elements in the Luiseño life cycle was death. At least a dozen successive mourning ceremonies were held following an individual's death, with feasting taking place and gifts being distributed to ceremony guests. Luiseño cosmology was based on a dying-god theme, the focus of which was *Wiyó-t',* a creator-culture hero and teacher who was the son of Earthmother (Bean & Shipek 1978). The order of the world was established by this entity, and he was one of the first "people" or creations. Upon the death of *Wiyó-t'* the nature of the universe changed, and the existing world of plants, animals, and humans was created. The original creations took on the various life forms now existing and worked out solutions for living.

These solutions included a spatial organization of species for living space and a chain-of-being concept that placed each species into a mutually beneficial relationship with all others.

Based on Luiseño settlement and subsistence patterns, the type of archaeological sites associated with this culture may be expected to represent the various activities involved in seasonal resource exploitation. Temporary camp sites usually evidenced by lithic debris and/or milling features, may be expected to occur relatively frequently. Food processing stations, often only single milling features, are perhaps the most abundant type of site found. Isolated artifacts occur with approximately the same frequency as food processing stations. The most infrequently occurring archaeological site is the village site. Sites of this type are usually large, in defensive locations amidst abundant natural resources, and usually surrounded by the types of sites previously discussed, which reflect the daily activity of the villagers. Little is known of ceremonial sites, although the ceremonies themselves are discussed frequently in the ethnographic literature. It may be assumed that such sites would be found in association with village sites, but with what frequency is not known.

History

Four principal periods of historical occupation existed in Southern California: the Protohistoric Period (1540-1768 CE), the Spanish Mission Period (1769-1830 CE), the Mexican Rancho Period (1830-1848 CE), and the American Developmental Period (1848 CE - present).

In the general study area, the Spanish Mission Period (1769-1830 CE) first represents historical occupation. Although earlier European explorers had traveled throughout South California, it was not until the 1769 “Sacred Expedition” of Captain Gaspar dé Portola and Franciscan Father Junipero Serra that there was actual contact with aboriginal inhabitants of the region. The intent of the expedition, which began in San Blas, Baja California, was to establish missions and presidios along the California coast, thereby serving the dual purpose of converting Indians to Christianity and expanding Spain’s military presence in the “New World.” In addition, each mission became a commercial enterprise utilizing Indian labor to produce commodities such as wheat, hides, and tallow that could be exported to Spain. Founded on July 16, 1769, the Mission San Diego de Alcalá was the first of the missions, while the Mission San Francisco Solana was the last mission, founded on July 4, 1823.

Although the Portola and Serra expedition apparently bypassed the study area, there is a possibility that Pedro Fages, a lieutenant in Portola’s Catalan Volunteers, may have stopped in the area while looking for deserters from San Diego in 1772 (Hicks and Hudson 1970; Hudson 1981). In addition, historian Phillip Rush credits Captain Juan Pablo Grijalva and his party with the first white discovery of the region in 1795 (Rush 1965). The first white men of record to enter the region were Father Juan Norberto de Santiago and Captain Pedro Lisalde. In 1797 their expedition

party, comprised of seven soldiers and five Indians (probably Juaneños from the Mission San Juan Capistrano) stopped briefly near Temecula on their journey to find another mission site. Upon leaving the valley Fr. Santiago remarked in his journal that the expedition had encountered an Indian village called "Temecula" (Hudson 1981).

In 1798 on the site Santiago had selected, the Mission San Luis Rey de Francia was founded and all aboriginals living within the mission's realm of influence became known as the "Luiseño." Within a 20-year period, under the guidance of Fr. Antonio Peyri, the mission prospered to a degree that it was often referred to as the "King of the Missions." At its peak, the Mission San Luis Rey de Francia, which is located in what is now Oceanside, controlled six ranches and annually produced 27,000 cattle, 26,000 sheep, 1300 goats, 500 pigs, 1900 horses, and 67,000 bushels of grain. During this period, the Mission San Luis Rey de Francia claimed the entire region that is now western Riverside County and northern San Diego County as a cattle ranch, although records of the Mission San Juan Capistrano show this region as part of their holdings.

By 1818 the greater Temecula Valley had become the Mission San Luis Rey's principal producer of grain and was considered one of the mission's most important holdings. It was at approximately this time that a granary, chapel, and majordomo's home were built in Temecula. These were the first structures built by whites within the boundaries of Riverside County (Hudson 1981). The buildings were constructed at the original Indian village of Temecula on a high bluff at the southern side of Temecula Creek where it joins Murrieta Creek to form the Santa Margarita River. This entire area continued to be an abundant producer of grain, as well as horses and cattle, for the thriving Mission San Luis Rey until the region became part of Mexico on April 11, 1822. Following this event, the Spanish missions and mission ranches began a slow decline.

Toward the end of this period, a federal law was passed that would have a substantial future impact on the study area in that it encouraged both increased settlement and land speculation. The Land Act of 1820, enacted April 24, 1820, ended the ability to purchase the United States' public domain lands on a credit or installment system over four years, as previously established. The new law became effective July 1, 1820, and required full payment at the time of purchase and registration. But to encourage more sales and make land more affordable, Congress also reduced both the minimum price from $2.00 to $1.25 per acre and the minimum size of a standard tract from 160 to 80 acres. The minimum full payment now amounted to $100, rather than $320. By lowering the price of land and the amount of land required for purchase, the law made it possible for settlers to move to the West. Although the Land Act of 1820 was good for the average American, it was also good for the wealthy land speculators who had sufficient money to buy the lower cost land, hoping to sell it later at a higher price. Although the Land Act helped create a new age of Western growth and influence, it also increased the confiscation of land from Native Americans.

During the Mexican Rancho Period (1830-1848 CE) the first of the Mexican ranchos were established following the enactment of the Secularization Act of 1833 by the Mexican government. Mexican governors were empowered to grant vacant land to "contractors (*empresarios*), families, or private citizens, whether Mexicans or foreigners, who may ask for them for the purpose of cultivating or inhabiting them" (Robinson 1948). Mexican governors granted approximately 500 ranchos during this period. Although legally a land grant could not exceed 11 square leagues (about 50,000 acres or 76 square miles) and absentee ownership was officially forbidden, neither edict was rigorously enforced (*ibid*). The subject property was not included in any of the land grants, but it was located only one-half mile west of the San Jacinto Nuevo y Potrero land grant, so it is probable that it was at least indirectly impacted by activities on the rancho.

The first use of the name San Jacinto Rancho was for a Mission San Luis Rey cattle ranch that had been named for the Silesian-born Dominican Saint Hyacinth (Jacinto is Spanish for Hyacinth), although there is no record of exactly when the mission established the ranch. The ranch was claimed by the Mission San Juan Capistrano as well but remained in the possession of the Mission San Luis Rey. On August 9, 1842, José Antonio Estudillo, who had been *mayordomo* of the Mission San Luis Rey from 1840 to 1843, filed an application for a grant of the four square leagues of the San Jacinto Rancho. Estudillo's petition stated that the land was absolutely vacant and that the land contained only an "indifferent house covered with earth, ten *varas* in length and of a corresponding width, which however is in a ruinous condition, and also an old corral which is useless, all constructed by the Indians, who sometimes live there, at which times they also make some small gardens" (Gunther 1984). Mexican authorities investigated Estudillo's claim and determined that the land was indeed vacant and had been so for a long time, with only "three Christianized Indians living on said place," all of whom were reportedly desirous of Estudillo taking over the land. Although two other Individuals had previously petitioned for the ranch, Governor pro-tem Manuel Jimeno, apparently in consideration of Estudillo's work for the Mexican government as *mayordomo* of Mission San Luis Rey, granted eight square leagues of the San Jacinto Rancho to Estudillo on December 21, 1842, an amount of land twice the size of what Estudillo had requested.

Such a large grant may have overwhelmed Estudillo because in 1845 Estudillo's son-in-law, Miguel de Pedrorena, petitioned for the grant of surplus land from the San Jacinto Rancho. Pedrorena's petition showed the original eight-league grant cut in half with Estudillo's portion to the southeast labeled "San Jacinto Viejo" (Old San Jacinto) and Pedrorena's portion in the northwest named "San Jacinto Nuevo" (New San Jacinto). Pedrorena also requested a small area north of San Jacinto in the Badlands. When submitted to the governor, Pedrorena's entire petition was called the San Jacinto Nuevo y Potrero, which essentially means "surplus lands of the old San Jacinto Rancho.

It was also during this historical period that the central event of California history -the Gold Rush - occurred. Although gold had been discovered as early as 1842 in the Sierra Pelona north of Los Angeles, it cost more to extract and process the gold than it was worth. The second discovery of gold in 1848 at Sutter's Mill by James Marshall was serendipitously coincidental with California's change in ownership as the result of the Anglo-American victory in the Mexican War, occurring at a time when many adventurers had come to California in the vanguard of military conquest.

The discovery of gold and the riches it promised caused California to become a magnet that attracted Anglo-American exploration and colonization. It has been estimated that the Anglo-American population of California at the beginning of 1848 was 2000 and that by the end of 1849 it had exploded to over 53,000 (Farquhar 1965). In 1849 alone, more than 40,000 people traveled overland from the Eastern United States to California and by the end of the year, 697 ships had arrived in San Francisco, bringing another 41,000 individuals. In 1850, over 50,000 people came overland and 35,000 came by sea. Hence, despite the fact that thousands of disenchanted prospectors who left California (reportedly 31,000 in 1853 alone), California's population had grown to 380,000 by 1860 and to 560,000 by 1870, not including the Native Americans, whose populations were decimated by the Anglo-American invasion. Conversely, in 1846 the Native American population in California is estimated to have been at least 120,000 and by the 1860s, only 20,000-40,000 had survived. This period of history is often referred to as the "California Indian Genocide".

During the years of the Gold Rush most mining occurred in the northern and central portions of the state. As a result, these areas were far more populated than most of southern California. Nevertheless, there was an increasing demand for land throughout the state and the federal government was forced to address the issue of how much land in California would be declared public land for sale. The Congressional Act of 1851 created a land commission to receive petitions from private land claimants and to determine the validity of their claims. The United States Land Survey of California conducted by the General Land Office began that year. The subject property was located in Section 1 of Township 4 south, Range 4 west and was surveyed from 1853 to 1896.

Throughout the 1840's and 1850's thousands of settlers and prospectors traveled through the study area on the Emigrant Trail in route to various destinations in the West. The southern portion of the trail ran from the Colorado River to Warner's Ranch and then westward to Aguanga, where it split into two roads. The main road continued westward past Aguanga and into the valley north of the Santa Ana Mountains. This road was alternately called the Colorado Road, Old Temescal Road, or Fort Yuma Road and what is now SR-79 generally follows its alignment. The second road, known as the San Bernardino Road, split off northward from Aguanga and ran along the base of the San Jacinto Mountains.

In the final period of historical occupation, the American Developmental Period (1848 CE-present), the first major changes in the study area took place because of land issues addressed in the previous decade. Following completion of the General Land Office surveys, large tracts of federal land became available for sale and for preemption purposes, particularly after Congress passed the Homestead Act of 1862. California was eventually granted 500,000 acres of land by the federal government for distribution, as well as two sections of land in each township for school purposes. Much of this land was in the southern portion of the state. Under the Homestead Act of 1862, 160-acre homesteads were available to citizens of the United States (or those who had filed an intention to become one) who were either the head-of-household or a single person over the age of 21 (including women). Once the homestead claim was filed the applicant had six months to move onto the land and was required to maintain residency for five years as well as to build a dwelling and raise crops. Upon completion of these requirements the homesteader had to publish intent to close on the property to allow others to dispute the claim. If no one did so the homesteader was issued a patent to the property, thus conveying ownership. Individuals were attracted to the federal lands by their low prices and as a result, the population began to increase in regions where the lands available for homestead were located. It was at this time that the region of Southern California which became Riverside County saw an influx of settlers as well as those seeking other opportunities, including gold mining. As Anglo-Americans came to this region in increasing numbers, the continued existence of Native Americans in the area was threatened as their traditional lands were taken from them.

On March 17, 1882, the California Southern Railroad commenced service, extending from National City near the Mexican border in San Diego County, northerly to Temecula and Murrieta, across the Perris Valley, down the Box Springs Grade, and on to the City of San Bernardino. Under the supervision of chief engineer Frederick Thomas Perris, the railway had been completed through the Perris Valley early in 1882 and settlers rushed to the region to homestead and buy railroad land. The original rail station in this area was the town of Pinacate, located approximately two miles south of the present city of Perris. Unfortunately, from the time the first train came through Temecula on its way to from National City to San Bernardino, the California Southern Railroad had been plagued by flooding and washouts in Temecula Canyon. Railway service was disrupted for months at a time and a fortune was spent on rebuilding the washed-out tracks. Finally, in 1891 the Santa Fe Railroad constructed a new line from Los Angeles to San Diego down the coast and when later that year the California Southern Railway's route through Temecula Canyon once again washed out, that portion of the line was discontinued.

Around the time that the California Southern Railroad commenced service, Mr. L. Menifee Wilson, a 20-year-old from Kentucky, moved to the area and located what appears to have been the first gold quartz mine in Southern California. The mine was located approximately eight miles south of Perris and was named the Menifee Quartz Lode. As news of his discovery spread, miners

flocked to the region to try their luck. Hundreds of gold mining claims were subsequently filed in the region around Menifee's mine and this area became known as Menifee and the Menifee Valley (Gunther 1984). Gold quartz discoveries in the Winchester, Perris, Murrieta, and Wildomar areas further fueled the belief that the entire region was one of unsurpassed mineral wealth, ripe for the taking. Wilson was one of the major proponents of this belief and in addition to his original mine, claimed several others in the general area. From the time of L. Menifee Wilson's first gold discovery in the early 1880's, gold production through hard rock mining in western Riverside County increased considerably, reaching its peak in 1895. At that time, the value of gold produced was reported in the *Mining and Scientific Press* (Vol. 85) as being $285,106. Although the gold value was still relatively high in 1896 ($262,800), from that point on production decreased substantially every year until in 1917 the value of gold was reported as being zero.

Based on numerous reports found in local newspapers such as the *Winchester Record*, *Perris New Era*, and Riverside's *Press and Horticulturist*, the gold boom in western Riverside County was rather short-lived, occurring primarily between late 1893 and mid-1895. During this period there were almost daily articles enthusiastically touting the number of new mining claims being recorded, yields from the various operations, and the resultant population boom as news of the region's mineral wealth spread. Several of the new mining claims were in the same region where the subject property is located. By early 1896 the mining related articles were less frequent and often lamented the closing of mines, which was generally due to the lack of water necessary for processing gold-bearing ore. By this time, a far greater emphasis began to be placed on the agricultural potential of the area. Replacing daily reports on gold yields from the mines were crop yields and bushel reports from the growing number of farms in western Riverside County. Although settlers continued to move into this region and a number of small towns developed, the migration was less dynamic than it had been during the early years of the gold rush.

In September of 1890, Commissioner of Indian Affairs Thomas J. Morgan instructed United States Indian Agent Horatio N. Rust to select a suitable site for a training school on an Indian reservation in Southern California. Despite Morgan's directive that the school be located on a reservation, Rust decided that the school site should be located away from the reservations, near a "thrifty" settlement already established. As a result of strong citizen support for such a school, the new city of Perris deeded the United States a block of 80 acres of choice land near town for the construction of an Indian training school. The location of the proposed school, encompassing Block 17 of the Riverside Tract, was "In the middle of the San Jacinto plain, 1½ miles from the Santa Fe Railroad, on the east side of the main avenue running the entire length of the valley, 100 feet wide, a 60 foot street on three sides and 80 acres full inside the streets" (Keller 2013a). Commissioner of Indian Affairs Morgan visited the site, approved of it, and accepted the deed. Upon Morgan's approval of the site, Congress appropriated $25,000 for construction of the school. Thus, the school property, located less than one mile southeast of what is now the Perris

Gateway project, became the site of Southern California's first off-reservation Indian boarding school (*Ibid.*).

Based on the model developed by Capt. Richard H. Pratt at the Carlisle Indian School in 1879, the intent of the Perris Indian School was to facilitate assimilation of Indian youth into white society by removing them from the reservations and traditional lifeways. The school was run on a military model, with children dressed in uniforms, their hair cut short, and life regulated by a series of bells. They were taught basic reading, writing, and math, as well as training in industrial skills for boys and domestic skills for girls. Although originally intended for children between the ages of 12 and 16, often children as young as 4 or 5 years of age lived at these schools, often not returning home until they were in their early 20s.

Originally, Perris Indian School was to have opened in October of 1892, but due to construction and water problems, the opening was delayed until December. When the school formally opened on January 9, 1893, the physical plant consisted of four buildings: the Girls Building, the Boys Building, the Boys Wash House, and the Shoe Shop (Fig. 7). Construction of each building cost $12,250, although the Boys Wash House was built at a cost of only $500. In 1895 a single-story hospital that measured 48 feet by 50 feet and included room for 14 patients and living quarters for three employees was erected at a cost of $1825.00 (*Ibid.*). Unfortunately, appropriations from Congress for the hospital did not include hiring any medical caregivers to staff the hospital.

Nine students registered at the school in December 1892 to help Superintendent M.H. Savage ready the school for its opening on January 9. Six additional students enrolled during the month of January and 74 more in February. By the end of March, a total of 104 students were boarding at Perris Indian School, with fourteen more enrolling by the end of the 1893 fiscal year in June. All students attending the school during these early months were from reservations within the Mission-Tule Agency, with the majority coming from the southern reservations in what is now San Diego County. The Perris Indian School continued in operation, often overcrowded and under-funded, until 1902 when operations were moved to the Sherman Institute in Riverside. Closure of the school resulted from school superintendent Harwood Hall's controversial claim that the water supply in Perris was of poor quality and quantity, leading to student illness, possible death, and poor nutrition. A small number of young children continued to live at the Perris school until 1904, at which time the school closed, and they were transferred to Riverside along with several of the school buildings. In 1906 the remaining school buildings were auctioned off and removed from the 80-acre property.

Figure 7: Perris Indian School, 1893.

One of the early developers of the region was Mr. J.W. Nance, who became a principal promoter of Perris. Nance, a native Tennessean, had moved to the Mississippi Valley after the Civil War, but after six years, his health deteriorated due to a persistent case of malaria, and he decided to move to California in hopes that his health would improve (Elliot 1890). He traveled all over California looking for a place to heal, but with no success. Finally, upon hearing from a physician in Los Angeles that he needed a place with a very dry climate, he was directed to the San Jacinto plains (now the Perris Valley). Despite being advised that he probably could not actually live there, because the only thing that could live there were jack rabbits, Nance nonetheless came to the valley, loved what he saw, and decided to stay (*Ibid*.). He purchased 200 acres and started farming, but eventually entered the real estate and insurance business, both of which were very successful.

In 1891, a syndicate of "capitalists" which included Nance, J.S. Castleman, A.H. Nafzger, L.C. Waite, J.A. Simms, C.H. Scott, A. Martin, and M.J. Daniels, incorporated as the Perris Land Company and put what was known as the "Riverside Tract" on the market. The Riverside Tract was a subdivision comprised of 1,360 acres of the former Rancho San Jacinto Nuevo, lying midway between Perris and Alessandro. The land was laid out in 80-acre blocks subdivided into 10-acre lots, complete with graded streets, shade trees, and irrigation pipes (Gunther 1984). With the exception of Nance, who lived in Perris, all members of the syndicate were from Riverside,

hence the name of the subdivision. Streets in the subdivision were named Nance, Markham, Perry, Morgan, Sinclair, and Rider ran from east to west, while Riverside Avenue, Perris Boulevard, and Redlands Avenue ran north to south. Although investors had been assured that plenty of water existed, the Riverside Tract was located within the Perris Irrigation District and by 1900, that source of water failed. Despite there being insufficient water for the entire Riverside Tract, over time, several of the original 80-acre blocks were successfully developed.

Following on the success of his Riverside Tract development in 1891, in July of 1893 Nance platted a tract five miles northwest of Perris and three miles southeast of Alessandro and named the development "Val Verde," a popular name with land developers in the late 19th century that is a contraction of the Spanish *valle verde*, meaning "green valley." The development was bisected by the California Southern Railway and after it was platted, the railroad company built a siding and station manned by an agent and two operators. Within six months, a hotel had been built near the rail station and a small community was soon established, with residents raising grain, grapes, potatoes, melons, alfalfa, and green vegetables (*Santa Fe Coast History* 1940). The Val Verde rail station was located immediately west of what is now the Perris Gateway project. On March 6, 1894, the Val Verde post office was established with James S. Williams as its first postmaster, but it was discontinued on August 31, 1904, and mail was sent to Perris. The post office reopened on December 28, 1918, but under the name *Vel Verde*, and continued in operation until January 30, 1930, when it was permanently closed, and mail was again sent to Perris. By 1940, the Val Verde station was a blind siding, and little remained of the small community.

Since 1918, the greatest influence on the Perris region has been March Air Force Base, whose southern corner is located approximately one mile north of the Perris Gateway project. In addition, a U.S. Military Reserve (Gregory Radio Range Station) is less than one-quarter mile northwest. At a time when the United States was rushing to build up its military forces in anticipation of an entry into World War I, Congress appropriated almost $640,000,000 in 1917 in an attempt to back the plans of General George O. Squier, the Army's chief signal officer, to "put the Yankee punch into the war by building an army in the air." (March 2010). Efforts by Mr. Frank Miller, then owner of the Mission Inn in Riverside, Hiram Johnson, and other California notables, succeeded in gaining War Department approval to construct an airfield at Alessandro Field located near Riverside, an airstrip used by aviators from Rockwell Field on cross-country flights from San Diego.

Sergeant Charles E. Garlick was selected to lead the advance contingent of four men to the new base from Rockwell Field. On March 20, 1918, Alessandro Flying Training Field became March Field, named in honor of Second Lieutenant Peyton C. March, Jr., son of the Army Chief of Staff, who had been killed in a flying accident in Texas the previous month. By late April 1918, enough

progress had been made in the construction of the new field to allow the arrival of the first troops. The commander of the 818th Aero Squadron detachment, Captain William Carruthers, took over as the field's first commander (March 2010).

Within 60 days, twelve hangars, six barracks equipped for 150 men each, mess halls, a machine shop, post exchange, hospital, a supply depot, an aero repair building, bachelor officer's quarters and a residence for the commanding officer had been erected. Although the signing of the armistice on November 11, 1918, did not initially halt training at March Field, by 1921, the decision had been made to phase down all activities at the new base in accordance with sharply reduced military budgets (March 2010). In April 1923, March Field closed its doors with one sergeant left in charge.

In July 1926, Congress created the Army Air Corps and approved the Army's five-year plan which called for an expansion in pilot training and the activation of tactical units. Funds were appropriated for the reopening of March Field in March of 1927 and Colonel William C. Gardenhire was assigned to direct the refurbishment of the base. In August 1927 Major Millard F. Harmon reported to take over the job of base commander and commandant of the flying school.

Just as March Field began to take on the appearance of a permanent military installation, the base's basic mission changed. When Randolph Field began to function as a training site in 1931, March Field became an operational base and soon became associated with the Air Corps' heaviest aircraft as well as an assortment of fighters. As an immediate result of the attack on Pearl Harbor in December of 1941, March Field again began training aircrews. During this period, the base doubled in area and at its peak supported approximately 75,000 troops (March 2010). At the same time, the government procured a similar-sized tract to the west and established Camp Hahn as an anti-aircraft artillery training facility. It supported 85,000 troops at the height of its activity.

After the war, March reverted to its operational role and became a Tactical Air Command base. In 1949, March became a part of the relatively new Strategic Air Command. Headquarters Fifteenth Air Force along with the 33d Communications Squadron moved to March from Colorado Springs in the same year. Also, in 1949, the 22d Bombardment Wing moved from Smoky Hill Air Force Base, Kansas to March. Thereafter, these three units remained as dominant features of base activities.

The 22nd Bombardment Wing was engaged in the Korean War for four months in 1953 and during the Vietnam War it deployed its planes several times. Following the end of hostilities in Southeast Asia, the 22d returned to its duties as an integral part of the Strategic Air Command. For the next eighteen years until 1982, March operated in an ancillary defensive position, but beginning in the

early 1980s, the large KC-10s stationed at March gave the field a featured part during Desert Shield and Desert Storm.

In 1993, March Air Force Base was selected for realignment. In August 1993, the 445th Military Airlift Wing transferred to March from Norton AFB, Calif. On January 3, 1994, the 22d Air Refueling Wing was transferred to McConnell AFB, Kansas, and the 722d Air Refueling Wing went to March. As part of the Air Force's realignment and transition, March's two Reserve units, the 445th Military Airlift Wing and the 452d Air Refueling Wing were deactivated and their personnel and equipment joined under the 452nd Air Mobility Wing on April 1, 1994. On April 1, 1996, March officially became March Air Reserve Base (March 2010).

METHODS AND PROCEDURES

Research

Prior to commencement of the Phase I Cultural Resources Assessment field survey, a request to conduct a records search was submitted to staff at the Eastern Information Center located at the University of California, Riverside on June 23, 2023. The requested research included a review of all site maps, site records, survey reports, and mitigation reports relevant to the study area. The following documents were also to be reviewed: the National Register of Historic Places, the California Office of Historic Preservation Archaeological Determinations of Eligibility, and the California Office of Historic Preservation Historic Property Directory. The results of the records search were received on July 11, 2023. In addition to the records search, a request for a Sacred Lands File search was submitted to the Native American Heritage Commission on June 23, 2023, with results received on July 19, 2023. On July 20, 2023, project scoping letters were sent to 27 tribal representatives listed by the NAHC as being interested in project development in the Perris area.

Following the records and Sacred Lands File search requests, a literature search of available published references to the study area was undertaken. Reference material included all available photographs, maps, books, journals, historical newspapers, registers, and directories held in various repositories. Archival and cartographic research was conducted through the USGS Historical Map Collection, the General Land Office records currently maintained by the California Office of the Bureau of Land Management, and a plethora of archival materials held by Ancestry.com, the California Digital Newspaper Collection, and the California Internet Archives. Information regarding property ownership and valuation from 1892 to 1949 was available from the Riverside County Archives, but post-1949 information was not accessible due to current conservation efforts and scanning of the original materials. The following maps were consulted:

1901 Elsinore, California 30’ USGS Topographic Map
1942 Riverside, California 15’ U.S. Dept. of the Army Corps of Engineers Topographic Map
1942 Perris, California 15’ U.S. Dept. of the Army Corps of Engineers Topographic Map
1953 Perris, California 7.5’ USGS Topographic Map
1953 Steele Peak, California 7.5’ USGS Topographic Map
1959 Santa Ana, California 1:250,000 USGS Topographic Map
1967 Perris, California 7.5’ USGS Topographic Map
1967 Steele Peak, California 7.5’ USGS Topographic Map
1973 (photorevised) Perris, California 7.5’ USGS Topographic Map
1973 (photorevised) Steele Peak, California 7.5’ USGS Topographic Map
1979 (photorevised) Santa Ana, California 1:250,000 USGS Topographic Map

1979 (photoinspected) Perris, California 7.5' USGS Topographic Map
1979 (photoinspected) Steele Peak, California 7.5' Topographic Map

Fieldwork

Subsequent to the literature, archival, photographic, and cartographic research, Jean Keller conducted a comprehensive pedestrian field survey of the subject property on August 3, 2023. The field survey was accomplished by traversing the subject property, beginning at the southeastern property corner, in parallel transects at 15-meter intervals. The survey proceeded in a generally east-west, west-east direction following the existing land contours. All of the property was accessible for survey. The southern portion of the property had recently been disced for the purpose of vegetation clearance, while the western portion of the property had completely barren areas interspersed with areas of dense vegetation. As a result of these varying conditions, ground surface visibility ranged from 10% to 100%, resulting in an overall average ground surface visibility of approximately 50%.

RESULTS

Research

Results of the records search conducted by staff at the Eastern Information Center, received on July 10, 2023, indicated that the subject property had been at least minimally included in six previous cultural resources studies. The first study, conducted by Caltrans in 1986, was an archaeological survey for the proposed upgrade of Route 215 from a four-lane expressway to a six-lane freeway (RI-2084). The entirety of what is now the Perris Gateway project was included in the study and no archaeological or historic resources were observed. The second study, entitled "Identification and Evaluation of Historic Properties Perris Valley Industrial Corridor Infrastructure Project" (RI-4211), was conducted in 1999 by CRM TECH. The only involvement of the subject property in this study were transects along Webster Avenue, the northwestern border, and the central portion of the property. No archaeological sites of prehistoric (Native American) or historical origin were recorded within the property boundaries during this study.

The third cultural resources study that involved the subject property was conducted in 2007 by CRM TECH and is entitled "Cultural Resources Technical Report North Perris Industrial Specific Plan, City of Perris, Riverside County, California" (RI-7538). This study included six square miles of land in the City of Perris and was conducted with the stated purpose of providing the City with the necessary information and analysis to facilitate cultural resources considerations in the planning process and in formulating pertinent municipal policies (CRM TECH 2007). As such, the 2007 study did not specifically address the subject property other than to place the property in a general area considered to have moderate to high cultural sensitivity.

The fourth cultural resources study, conducted by CRM Tech in 2010, was entitled "Preliminary Historical/Archaeological Resources Study Southern California Regional Rail Authority Perris Valley Line Positive Train Control Project In and Near the Cities of Riverside, Perris, and Menifee, Riverside County, Calfirona," (RI-8771). The study included a 22-mile-long segment of the existing right-of-way of the former Atchison, Topeka, and Santa Fe Railway, so only the western boundary of the subject property was involved. No cultural resources were observed within the property boundaries.

The fifth cultural resources study, conducted by this firm in 2013, is the only one to comprehensively encompass the entirety of what is now the Perris Gateway project. The subject property was only part of the original study, entitled "A Phase I Cultural Resources Assessment of Tentative Parcel Map 36512, ±88 Acres of Land in the City of Perris, Riverside County, California" (RI-9054); the remainder of the acreage has already been developed. No cultural

resources of prehistoric or historical origin were observed within the boundaries of what is now the proposed project.

Finally, the sixth study was conducted in 2014 by LSA Associates, Inc. and was entitled "Discovery and Monitoring Plan for the Mid County Parkway (MCP), Riverside County, California, Caltrans District 8" (RI-10199). The study was conducted for the proposed construction of the Mid County Parkway, a new highway project in western Riverside County, primarily along or parallel to the existing Ramona Expressway. A total of six archaeological resources were evaluated for significance within the MCP APE, none of which were located within the boundaries of the subject property. The only portions of what is now the Perris Gateway project that were included in the 2024 study were a small section of the Ramona Expressway, which forms its southern boundary, as well as a transect that somewhat followed the eastern portion of the property's northern boundary, then headed south across the center of the property to connect with the Ramona Expressway. No cultural resources were observed within these transects.

The subject property is located within an exceptionally well-studied area with 70 previous cultural resources studies having been conducted, many of which included large acreages. During the course of field surveys for these studies, 38 cultural resources properties were recorded. Seventy-six percent of the recorded sites are of historical period origin, dominated by structures or the remains thereof, with the remainder comprised of resources representing irrigation or railroad features. Twenty-one percent of recorded resources are of prehistoric (Native American) origin, and all are comprised either of isolates artifacts or a limited number of bedrock milling features. A single site (3%) has both prehistoric and historical components. Spatial distribution of recorded cultural resources in relation to distance from the Perris Gateway project is relatively balanced, with 19% located within one-quarter mile, 19% within one-quarter to one-half mile, 16% located within a one-half to three-quarters mile radius, and 27% of sites located at least one mile from the subject property. Table 1 lists the Primary Numbers and Trinomials for each site, the recorded cultural resources, and the distance of the site from the Perris Gateway project.

Table 1
Previously Recorded Cultural Resources in the Scope of the Records Search

Primary Numbers *(Trinomials)*	Description of Recorded Cultural Resources	Distance from Perris Gateway *In miles*
P-33-001183 *(CA-RIV-1183)*	Unknown old railroad siding	0.00 – 0.25
P-33-003500 *(CA-RIV-3500)*	3 bedrock milling features, each with 1 slick. *Testing found no subsurface cultural deposit.*	1.00
P-33-003501 *(CA-RIV-3501)*	2 slicks on 2 bedrock outcrops. *Testing found no subsurface cultural deposit.*	1.00

P-33-005775 *(CA-RIV-5516H)*	Well No. 6 (cube-shaped well house), drilled in 1941 as part of the Gregory Radio Range complex associated with March Army Airfield.	1.00
P-33-007623	1895 Liberty Bell Café (19370 Hwy 194). Roadside Commercial Streamlined Moderne. *Moved in 1987 to accommodate I-215, now on the grounds of the Orange Empire Railway Museum in Perris.*	0.25 – 0.50
P-33-007639	1895 Queen Anne Residence (18391 Patterson Avenue).	0.00 – 0.25
P-33-007640	1900 Vernacular Ranch House – George H. Sawyer House (19542 Patterson Avenue).	0.75 – 1.00
P-33-07650	1941 Vernacular Wood Frame – Boyd Tanks Co/Camp Haan Barracks (23960 Oleander Avenue). *Moved to this location.*	0.75 – 1.00
P-33-007674	1911 Val Verde Elementary School (24040 Ramona Expressway) Vernacular Mediterranean/Spanish Revival building, plus wood frame house and garage. *Demolished by 1999*	0.25 – 0.50
P-33-008700	Concrete standpipe & associated concrete well pump foundation and concrete box.	0.00 – 0.25
P-33-008701	Exposed section of old steel pipe with riveted seams.	0.00 – 0.25
P-33-008702	Remains of old house, incl. concrete pad & debris	0.00 – 0.25
P-33-008703	Pre-1939 remains of old house,	0.25 – 0.50
P-33-011265 *(CA-RIV-6726H)*	Julian Hands Pumping Station (Colorado River Aqueduct System)	N/A*
P-33-015743 *(CA-RIV-8196)*	Segment of abandoned California Southern Railroad grade, all physical features have been removed, so only vaguely recognizable.	0.00 – 0.25
P-33-016041	1 isolated piece of amethyst glass	0.00 – 0.25
P-33-016943	3 fragments of 1 quartz monzonite biface metate & 1 granitic mano	1.00
P-33-016044	1 utilized flake of fine-grained igneous material	1.00
P-33-016239 *(CA-RIV-8390)*	Remnants of historic residence, incl. concrete slab with wood frame pumphouse, electric pole with 1930 dating nail, 3 1930 or 1945 nail, ceramic sherds, Queen Anne style porch railing, 2 pre-1941 bricks.	0.25 – 0.50
P-33-016251 *(CA-RIV-8402)*	*Prehistoric*: 5 slicks *Historical*: window glass, metal fragments, ceramics, etc. *Testing found no intact surface or subsurface deposit.*	0.75 – 1.00
P-33-016544 *(CA-RIV-8691)*	1 slick, minimally & moderately ground/polished, highly exfoliated	1.00
P-33-019869 *(CA-RIV-10114)*	Very sparse scatter of post-1900 historic refuse, including aqua glass fragments, burned bottle fragments, blue-on-white porcelain ceramic sherds, and end of metal conduit. 26 artifacts in 1000 square meters.	0.75 – 1.00
P-33-020334 *(CA-RIV-10260)*	Post-1913 irrigation features, including well, pump base, small concrete pad, and metal pipes.	0.50 – 0.75
P-33-024092	Remnants of one or more irrigations systems of inconclusive age. Concrete box with concrete standpipe inside, several	0.50 – 0.75

	concrete standpipes or portions of standpipes, all filled with dirt, rocks, and debris.	
P-33-024867	Lateral B-Oleander Channel build in the 1960s.	0.75 – 1.00
P-33-024868	745' segment of Webster Avenue south of the end of Heacock, north & south of Harley Knox Boulevard. Existed since the 1890s, currently with various types of construction.	0.75 – 1.00
P-33-026856	Isolated granite metate fragment	1.00
P-33-028172	Late 1930s refuse burn deposit pit.	1.00
P-33-028522 *(CA-RIV-12857)*	2 concrete slab foundations, 5 fence posts, and small historic refuse deposit including kitchen items, consumer items, garment items, hardware, household items, personal items; 19 diagnostic items. (1960s – 1970s)	0.50 – 0.75
P-33-028523 *(CA-RIV-12858)*	Concrete slab, 3 wooden posts, no associated artifacts (Mid-20th century).	0.50 – 0.75
P-33-028563 *(CA-RIV-12873)*	3 bedrock milling features with two slicks each on two outcrops, I slick on one outcrop, & mano fragment. *Single slick and mano fragments found during monitoring, no subsurface artifacts observed. Three milling features and mano relocated on the property.*	0.50 – 0.75
P-33-028575	Isolated mano fragment*. Observed during monitoring Cultural training Meeting.*	0.25 – 0.50
P-33-028588 *(CA-RIV-12877)*	2 wood utility poles – 1950 nails present.	1.00
P-33-028589 *(CA-RIV-12878)*	2 historic period vertical steel poles, 7" x 15'	1.00
P-33-028621	5' x 5' concrete slab with galvanized spigot (Mid-20th century)	0.75 – 1. 00
P-33-028851 *(CA-RIV-12938)*	1914 to post-1945 Remnants of two historic structures with associated debris and landscaping. Two concrete foundations, glass fragments, ceramic sherds, saw cut cow bone, red brick.	0.25 – 0.50
P-33-029425 *(CA-RIV-13175)*	1953 – 1962 historic ancillary structure with associated septic system and foundations.	0.25 – 0.50
P-33-029442	1064 Transitional Ranch Style house (4517 Wade Avenue)	0.50 – 0.75
P-33-029449 *(CA-RIV-13192)*	1920s – 1950s sixteen historic artifacts found during monitoring.	0.75 – 1.00

**Incorrectly listed, site is located on the Hayfield, Calif. Quadrangle*

A search of the *Sacred Lands File* for the subject property was completed on July 19, 2023, by the Native American Heritage Commission. Based on the provided USGS quadrangle information, the search had positive results, which means that sacred lands have been recorded within the same township, range, and section as the subject property. At this time, responses to the 27 project scoping letters sent to tribes interested in the Perris area have only been received from the Rincon Band of Luiseño Indians Cultural Resources Department and the Agua Caliente Band of Cahuilla Indians. Rincon's letter, received July 28, 2023, stated that the subject property is within the Traditional Use Area of the Luiseño Indians and is also within the Tribe's specific are of historic interest. As such, the Rincon Band is traditionally and culturally affiliated with the project area.

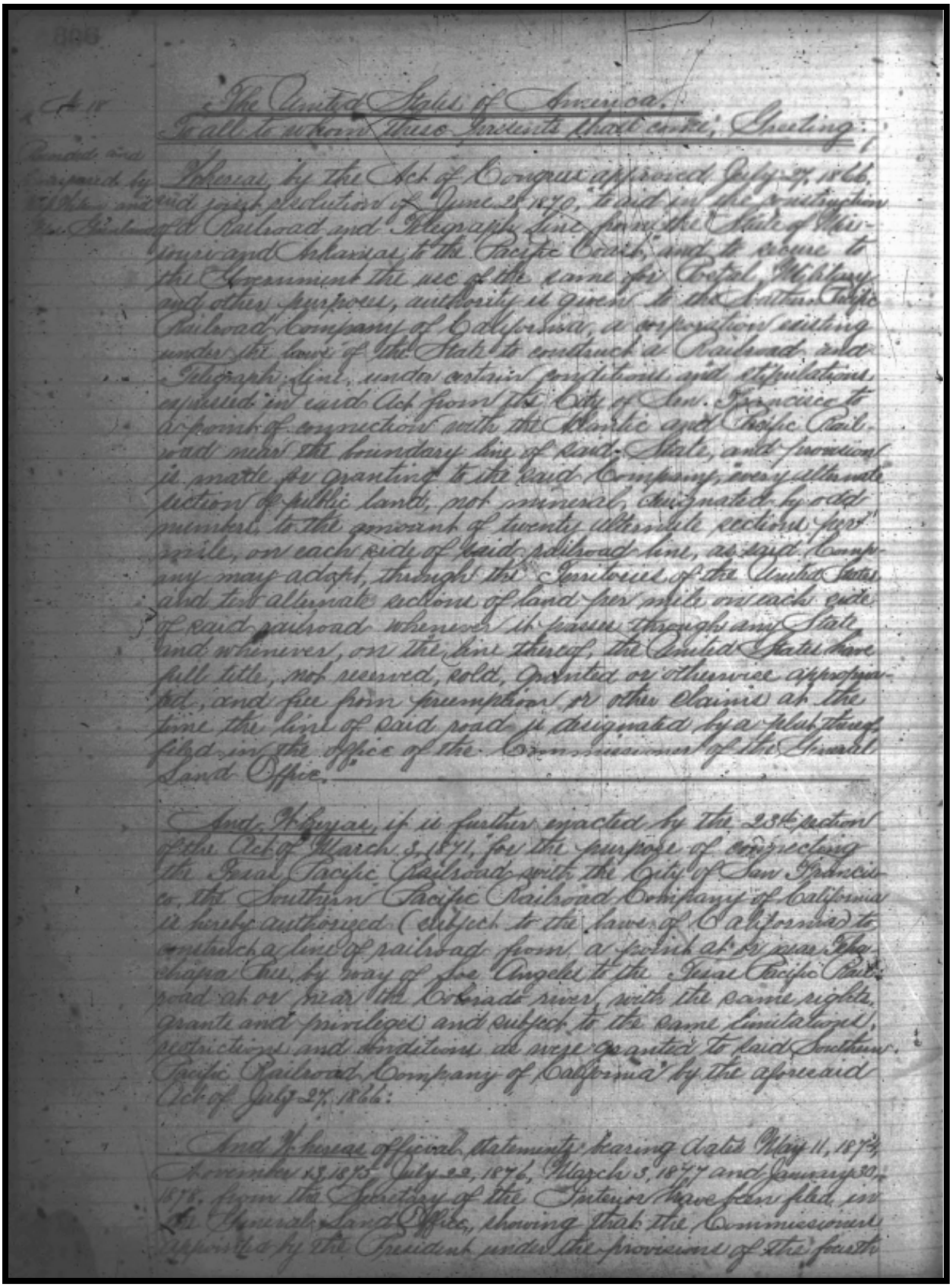
After a review of the provided documents and their internal documents, they determined that no cultural resource information is available to share at this time. Therefore, the Tribe has no comments and they do not request consultation. They recommend that local tribes be contacted as they are closer to the project and may have pertinent information. The Rincon Band requested that a final copy of the cultural resources study be forwarded to them upon completion. The Agua Caliente Band of Cahuilla Indians' response, received on August 3, 2023, requested that a cultural resources inventory of the project area be conducted by a qualified archaeologist prior to development, and that a copy of the records search, as well as copies of any cultural resource documentation generated in connection with this project, be sent to them. The records search results are included in this Phase I report and as part of the AB 52 consultation process, the City of Perris forwards copies of cultural resource studies to interested tribes.

The literature search offered no information specific to the subject property. Archival resources paint a complicated and intriguing picture of early non-Native property ownership of the Perris Gateway project. In large part this is due to its rather linear configuration, which encompasses portions of the SE¼SW¼, the SW¼SE¼, and the SE¼SE¼ of Section 1, Township 4 south, Range 4 west. The scale of existing maps, coupled with often conflicting descriptions of parcel boundaries, makes the determination of land ownership and valuation over time an admittedly mind-numbing exercise and one far beyond the scope of a Phase I Cultural Resources Assessment. Determination of property ownership and valuation over time is further complicated by the dynamic nature of land ownership and development in the project area, beginning in the late 19th century and continuing through the early 20th century. This was primarily driven by the presence of the California Southern Railroad, which parallels the western boundary of the subject property, but also to changes in associated infrastructure. All of these factors contributed to an evolving landscape of ownership and development which impacted determination of the subject property's land use history. For example, while the majority of land purchases in the region were parcels contained within a single subdivision, the property that is now the Perris Gateway project was included in two separate subdivisions: the Val Verde Subdivision (1893 -1909) and the Perry Re-Subdivision (1910-1949). To further complicate the issue, due to its linearity, portions of multiple parcels in each of the subdivisions comprised the subject property, thus making an accurate evaluation of assessed value and land use over time a virtual impossibility. Perhaps the best way to put the difficulty of the issue into perspective is to recognize the fact that from 1891 to 1949, there were 36 different owners of the subject property and 348 different assessed valuations of the various portions of what is now the Perris Gateway project. In consideration of the aforementioned factors, this Phase I Cultural Resources Assessment will address only specific relevant property history landmarks obtained through archival and cartographic research instead of providing a comprehensive accounting of the ownership of the subject property, as well as the valuation of land, buildings, and trees/vines, from 1892 to 1949, the period for which records are currently available through the Riverside County Archives.

According to General Land Office records maintained by the Bureau of Land Management indicate that the earliest non-Native owner of the subject property on record was the Southern Pacific Railroad Company. On October 7, 1891, a Serial Patent for title to the southern half of Section 1, Township 4 south, Range 4 west, which included the entirety of what is now the Perris Gateway project, was issued to the Southern Pacific Railroad Company (Fig. 8). The patent was issued by authority of the Act of July 27, 1866: Grant-RR-Atlantic and Pacific (14 Stat. 292) and included a total of 98,330.04 acres of land. Congress passed this statute to aid in the construction of a railroad and telegraph lines from the states of Arkansas and Missouri to the Pacific Coast. The act stipulated that every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile on each side of the railroad line through territories of the United States, and ten alternate sections of land per mile on each side of the railroad line whenever it passed through states, be granted to the railroad. Should the land granted to the railroads not be utilized, it could be sold.

The County of Riverside was not established until May 2, 1893, so before that time, the subject property was located within the County of San Diego and all pre-1893 records of land transactions are maintained by the County of San Diego Assessor/Recorder/County Clerk Office. Despite exhaustive research through the Grantor Index of 1889-1900, no record could be found of Southern Pacific Railroad Company transferring ownership of the subject property to a subsequent owner. Similarly, research through the Grantee Index of 1889-1900 failed to find evidence of a land sale. San Diego County Assessor's Office records for 1892 were transferred to Riverside County to ensure that properties transitioning from San Diego County were accounted for when the new county officially opened for business. According to these records, in 1892 Mr. J.W. Nance, a pillar of the Perris community and one of the developers of the "Riverside Tract" previously discussed in the History section of this report, owned Sections 1 and 12 of Township 4 south, Range 4 west, which included the subject property in the S½ of Section 1.

On July 29, 1893, Nance recorded a new subdivision called the Val Verde Tract (Fig. 9). Less than one month later on August 16, 1893, he sold Lot 1 of Block 6 to James Williams, the first postmaster of the Val Verde Post Office The subdivision was located immediately west of the Riverside Tract, with Webster Avenue as a shared boundary. Both Patterson Avenue and Webster Avenue were designed as part of the Val Verde Tract, while roads oriented in an east/west direction that had been created for the Riverside Tract were extended westerly into the Val Verde Tract, thereby connecting the two subdivisions. The subject property, now the Perris Gateway project, was located in portions of Lots 4, 5, 6, 7, and 8, as well as a portion of Block 10 in Nance's Val Verde Tract (Fig. 10).



The United States of America.

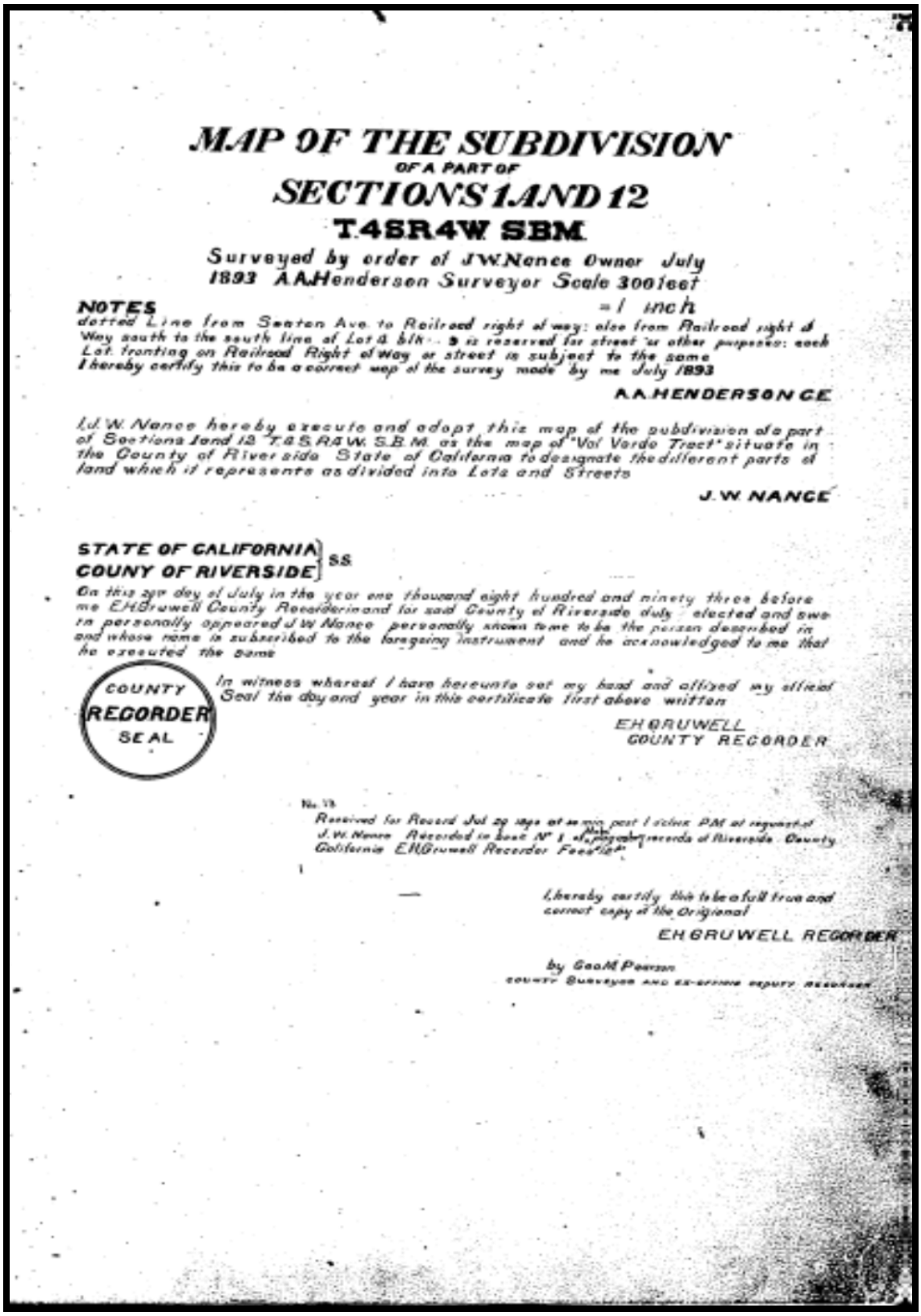
To all to whom these Presents shall come, Greeting:

Whereas, by the Act of Congress approved July 27, 1866, and joint resolution of June 28, 1870, aid in the construction of a Railroad and Telegraph line from the State of Missouri and Arkansas, to the Pacific Coast, and to secure to the Government the use of the same for Postal, Military and other purposes, authority is given to the Southern Pacific Railroad Company of California, a corporation existing under the laws of the State to construct a Railroad and a Telegraph line, under certain conditions and stipulations expressed in said Act from the City of San Francisco to a point of connection with the Atlantic and Pacific Railroad near the boundary line of said State, and provision is made for granting to the said Company, every alternate section of public lands, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said Company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State and whenever, on the line thereof, the United States have full title, not reserved, sold, granted or otherwise appropriated, and free from preemption, or other claims at the time the line of said road is designated by a plat thereof filed in the office of the Commissioner of the General Land Office.

And Whereas, it is further enacted by the 23d section of the Act of March 3, 1871, for the purpose of connecting the Texas Pacific Railroad with the City of San Francisco, the Southern Pacific Railroad Company of California is hereby authorized (subject to the laws of California) to construct a line of railroad from a point at or near Fort Yuma, by way of Los Angeles to the Texas Pacific Railroad at or near the Colorado river, with the same rights, grants and privileges and subject to the same limitations, restrictions and conditions as were granted to said Southern Pacific Railroad Company of California by the aforesaid Act of July 27, 1866:

And Whereas official statements bearing dates May 11, 1874, November 18, 1875, July 22, 1876, March 3, 1877 and January 30, 1878, from the Secretary of the Interior have been filed in the General Land Office, showing that the Commissioner appointed by the President under the provisions of the fourth

Figure 8: Serial Patent issued to the Southern Pacific Railroad Co. on October 7, 1891, for 98,330.04 acres of land (BLM Serial Nr: CACAAA 072347).



MAP OF THE SUBDIVISION
OF A PART OF
SECTIONS 1 AND 12
T.4S R4W SBM

Surveyed by order of J.W. Nance Owner July 1893 A.A. Henderson Surveyor Scale 300 feet = 1 inch

NOTES
dotted Line from Seaton Ave. to Railroad right of way: also from Railroad right of Way south to the south line of Lot 4 blk 3 is reserved for street or other purposes: each Lot fronting on Railroad Right of Way or street is subject to the same
I hereby certify this to be a correct map of the survey made by me July 1893

A.A. HENDERSON CE

I, J.W. Nance hereby execute and adopt this map of the subdivision of a part of Sections 1 and 12 T.4S. R.4W. S.B.M. as the map of "Val Verde Tract" situate in the County of Riverside State of California to designate the different parts of land which it represents as divided into Lots and Streets

J.W. NANCE

STATE OF CALIFORNIA
COUNY OF RIVERSIDE } SS

On this 29th day of July in the year one thousand eight hundred and ninety three before me E.H. Bruwell County Recorder in and for said County of Riverside duly elected and sworn personally appeared J.W. Nance personally known to me to be the person described in and whose name is subscribed to the foregoing instrument and he acknowledged to me that he executed the same

COUNTY RECORDER SEAL

In witness whereof I have hereunto set my hand and affixed my official Seal the day and year in this certificate first above written

E.H. BRUWELL
COUNTY RECORDER

No. 78
Received for Record Jul 29 1893 at 10 min past 1 o'clock PM at request of J.W. Nance Recorded in Book No 1 of Photographs records of Riverside County California E.H. Bruwell Recorder Fee $1.00

I, hereby certify this to be a full true and correct copy of the Origional

E.H. BRUWELL RECORDER

by Geo. M. Pearson
COUNTY SURVEYOR AND EX-OFFICIO DEPUTY RECORDER

Figure 9: J.W. Nance's Val Verde Tract, recorded July 29, 1893.

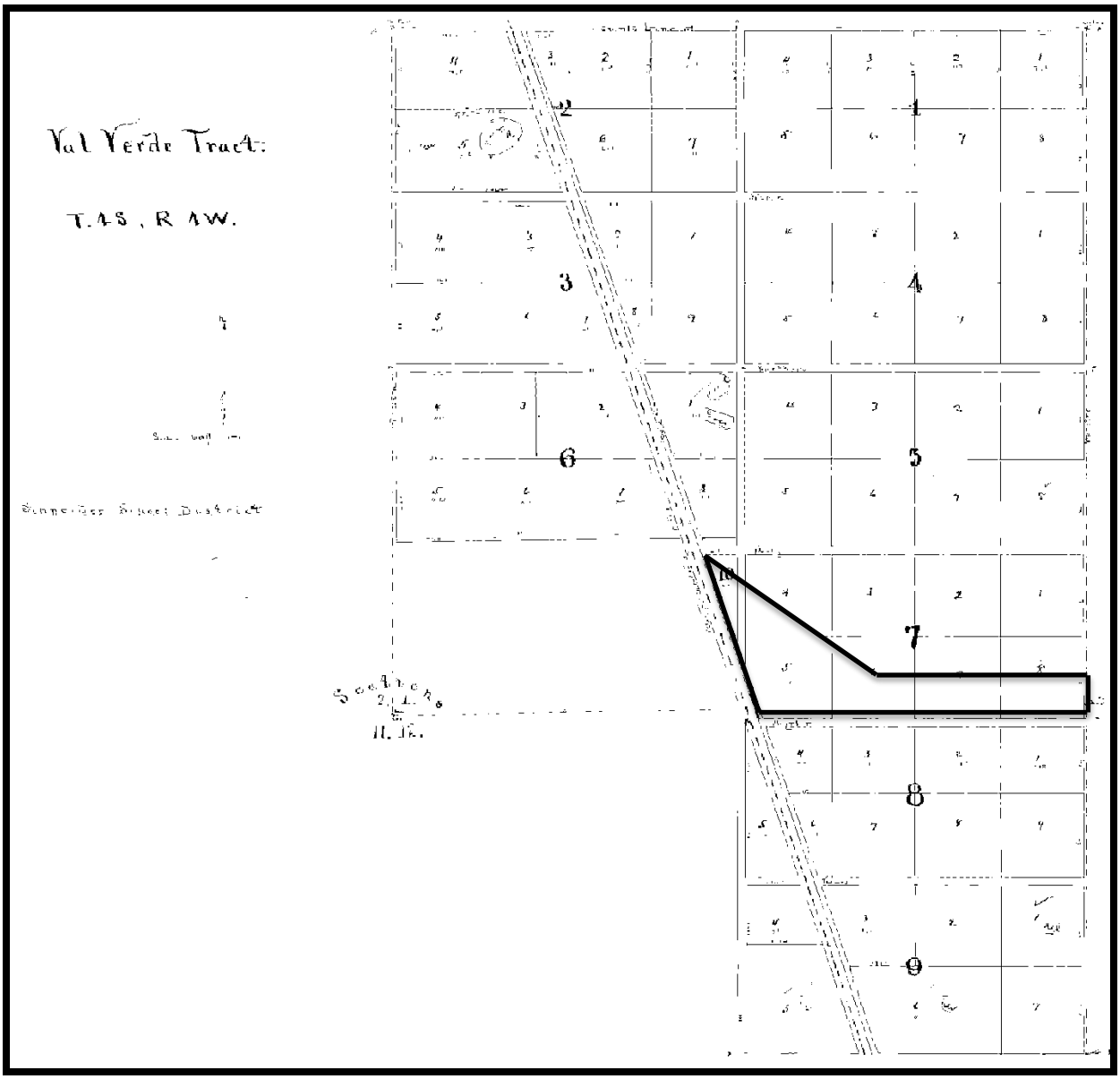


Figure 10: Location of the subject property in the Val Verde Tract, 1893.

Despite the complexity of the subject property's configuration in encompassing portions of six different lots, the early years of ownership were relatively straightforward because single investors purchased large expanses of land. It was not until subdivided lots started being subdivided, and those lots were then subdivided, that analyzing land use history and assessed valuation becomes problematic. Since the subject property was first included in the Val Verde Tract in 1893, portions have been subject to numerous – and sometimes rapid - changes in ownership with few exceptions.

On July 7, 1894, all of the Val Verde Tract except Lot 1 of Block 6 and Lot 6 of Block 10 was transferred to Joseph Eastman. Approximately one year later, on November 30, 1895, Eastman

sold Block 10 and all of Block 7 except Lots 7 and 8, to Hugh Lennox; Lot 7 was sold to Mark G. Jones and Lot 8 to Joseph Folger. Lennox apparently lost his land to the State for non-payment of property taxes and the entirety of Block 10 and Block 7 was acquired by Alex T. Crane, except for Lots 7 and 8 of Block 7. Mark Jones maintained ownership of Lot 7, while George W. Eldridge purchased Lot 8. This ownership distribution stayed much the same until 1908, when Eva and Lewis B. Perry purchased most of the remaining Val Verde Tract.

On August 26, 1910, Lewis Perry recorded the Perry Re-Subdivision of the Val Verde Tract. A portion of the subject property (Val Verde Tract Block 10, as well as Lots 4, 5, & 6 of Block 7), was included in the reconfigured subdivision, although Lots 7 and 8 of Block 7 were not included (Fig. 11). The Perry Re-Subdivision maintained the same configurations of Patterson Avenue, Webster Avenue, and Martin Avenue as originally delineated in the Val Verde Tract. Once the Perry Re-Subdivision was established, land sales were apparently strong, although there were frequent changes in ownership for many of the lots, including those that comprise what is now the Perris Gateway project. The only exceptions to this were Lots 7 and 8 of Val Verde Tract Block 7, which were not included in the Perry Re-Subdivision. These two 10-acre parcels are located at the eastern terminus of the subject property, although only the southern half of each is included in the proposed Perris Gateway project.

Mark G. Jones owned land of the Val Verde Tract (and the subject property) longer than any other person, having purchased Lots 7 and 8 of Block 7 in 1896, paying $150 for each 10-acre parcel. Although he sold Lot 8 to Joseph Folger in 1897, he maintained ownership of Lot 7 until his death in 1922, at which time the land was passed to his wife, Blanche E. Jones. She held the property until 1937, when it was transferred to Dorothy L. Jones. The relationship between Blanche and Dorothy Jones could not be ascertained. Although they both lived in Los Angeles, Dorothy does not appear in the Jones family trees, nor was she listed in any archival documents as being related to either Mark or Blanche Jones. Interestingly, Blanche Jones died on December 5, 1945, and Dorothy sold the property to Donald and Ruby Smith the same year. It is possible that Dorothy Jones was a distant relative of Mark Jones and served as caretaker for Blanche in her later years.

Mark Gordon Jones, born December 22, 1859, never lived on the subject property despite owning it since 1896, shortly after the Val Verde Tract was established. In his early 20s, Jones worked as a fire insurance agent and by his late 20s, had established a career in real estate, beginning with the administration of his mother's estate in 1885. According to *Who's Who of the Pacific Coast, 1913 Edition*, Jones worked at the Los Angeles County Treasurer 1889-1907, and it was during this period that he purchased Val Verde Tract Lots 7 & 8 of Block 7 as an investment. By 1913, Mark Jones was the president and treasurer of the Inglewood Park Cemetery Association, as well as the President of the Merchants Bank and Trust Co. During the entire time the Jones family

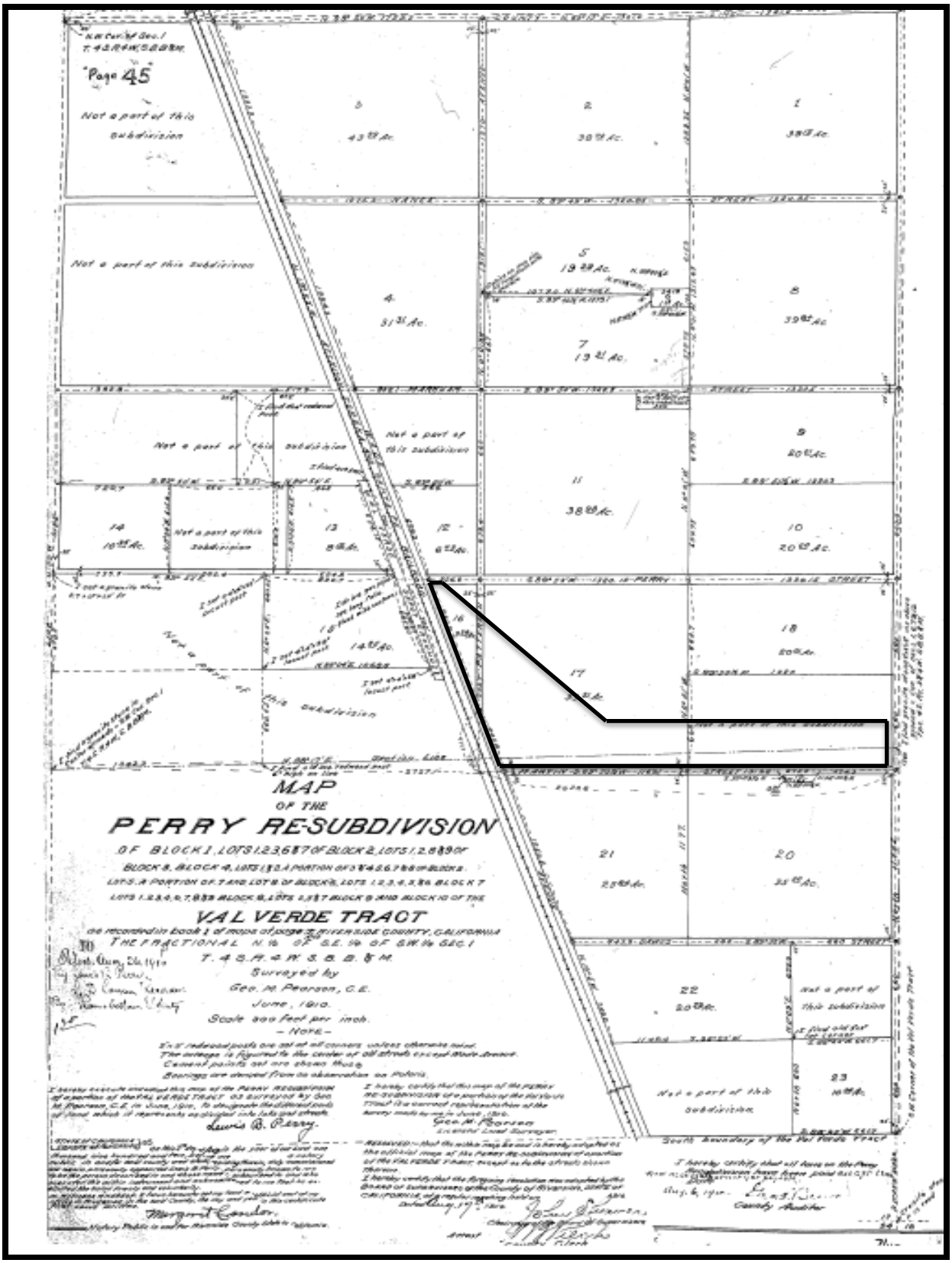


Figure 11: Location of the subject property in the Perry Re-Subdivision, 1910.

owned Lot 7 of Block 7, they lived in Los Angeles and this part of the subject property was never more than what must have seemed like a lucrative land investment in what was then a rapidly developing area of Southern California. Ironically, the assessed value of the 10-acre Lot 7 in 1945 was $250, having just appreciated in value $100 since Jones' 1896 purchase.

Cartographic research indicates that a building existed at the southeastern corner of the subject property as early as 1897-1898, which at the time was Block 7, Lot 8 of the Val Verde Tract (Fig. 12). Inexplicably, this building does not appear in Riverside County Property Ownership records. In 1902, when Lot 8 was owned by George W. Eldridge, a building with an assessed value of $100 appears on the Riverside County Real Property Ownership Record. The type of building was not specified in the records, so it may not have been a structure typically assessed for taxes, or alternatively, its construction may simply have not been reported or noticed at that time. Although it may be assumed that this is the building shown on the 1901 map, Eldridge did not own Lot 8 until 1900. The building was possibly constructed by a previous owner but was not discovered by the Riverside County Assessor's Office until 1902, at which time it entered into the records.

Figure 12: Building located at the southeastern corner of the subject property 1897-1898. Adapted from 1901 USGS Elsinore Topographic Map.

Archival records do not indicate that Eldridge ever resided on the property. He was an architect who lived in Los Angeles during the entire period he owned the land, from 1900 to 1912. Like Mark Jones, Eldridge probably viewed Lot 8 as a good investment in a burgeoning area. With an increase in value from $80 for the 10-acre lot in 1900 to $150 in 1912 when he sold it, Eldridge almost doubled his investment. The building was last assessed in 1918, with a value of $80, and never again appears cartographically after the 1901 USGS Elsinore topographic map. This is due to a large gap in cartographic sources between 1901 and 1942. Aerial photographs for the 1942 USACOE Perris topographic map were taken in 1939, long after the structure apparently ceased to exist and there were no maps issued for the period between 1901 and 1942.

A second building appears cartographically within the boundaries of the subject property on the 1953 USGS Steel Peak Quadrangle. Aerial photographs taken in 1951 show the building located near the northwestern corner of the property, south of Perry Street at the juncture of Patterson Avenue and Hwy 395 (Fig. 13). The building did not appear on the 1942 USACOE Perris topographic map, or on the 1967 USGS Steele Peak topographic map. No information could be found in available archival records regarding this building. By 1939, Riverside County Real Property Ownership Records no longer listed what had been Block 16 of the Perry Re-Subdivision, within which the building was located. It is probable that the building was constructed in 1950 and no longer existed by 1966, when aerial photos for the 1967 USGS topographic map were taken.

Figure 13: Building located at the northwestern corner of the subject property, 1951. Adapted from 1953 USGS Perris & Steele Peak Quadrangles.

As early as 1897-1898, virtually all currently existing roads were in place, having been developed by the Perris Land Company for the Riverside Tract in 1891 and by J.W. Nance for the Val verde Tract in 1893. Between 1898 and 1987, the improvement status of the individual roads in the vicinity of the property changed, but the general configuration remained the same until the time when Martin Street became the Ramona Expressway in 2007 and Oleander Avenue became Harley Knox Boulevard in 2009.

Fieldwork

No cultural resources of prehistoric (Native American) or historical origins were observed within the boundaries of the Perris Gateway project during the current field survey. No bedrock outcrops exist within the property boundaries and loose lithic material is very sparse. While an abundance of debris and gravel has been scattered throughout the property, all that observed was of contemporary origin. No indications of a possible subsurface cultural deposit were observed.

CONCLUSIONS AND RECOMMENDATIONS

No cultural resources of prehistoric (Native American) or historical origin were observed within the boundaries of the Perris Gateway project during the field survey. In addition, no information has been obtained through Native American consultation that the subject property is culturally or spiritually significant and no Traditional Cultural Properties that currently serve religious or other community practices are known to exist within the project area. During the current cultural resources evaluation, no artifacts or remains were identified or recovered that could be reasonably associated with such practices.

Results of the records search conducted by staff at the Eastern Information Center on July 10, 2023, indicated that the subject property had been included at least minimally in six previous cultural resources studies and that no cultural resources have been recorded within its boundaries. The subject property is located within an exceptionally well-studied area with 70 previous cultural resource studies having been conducted within a one-mile radius, many of which included large acreages. During the course of field surveys for these studies, 38 cultural resources properties were recorded. Seventy-six percent of the recorded sites are of historical period origin, dominated by structures or the remains thereof, with the remainder comprised of resources representing irrigation or railroad features. Twenty-one percent of recorded resources are of prehistoric (Native American) origin, and all are comprised either of isolates artifacts or a limited number of bedrock milling features. A single site (3%) has both prehistoric and historical components. Spatial distribution of recorded cultural resources in relation to distance from the Perris Gateway project is somewhat balanced, with 19% located within one-quarter mile, 19% within one-quarter to one-half mile, 16% located within a one-half to three-quarters mile radius, and 27% of sites located at least one mile from the subject property.

Archival and cartographic research indicate that a building existed at the southeastern corner of the subject property as early as 1897-1898. Inexplicably, this structure does not appear on the Riverside County Property Ownership list. It may not have been the type of structure assessed for taxes, or alternatively, its construction simply may not have been reported or noticed. Interestingly, a structure with an assessed value of $100 appears on the Riverside County Real Property Ownership Record in 1902 and remained until 1918. It is assumed that this is the structure shown on the 1901 map. However, due to a large gap in cartographic sources between 1901 and 1942, the structure never appears cartographically after the 1901 USGS Elsinore topographic map and aerial photographs for the 1942 USACOE Perris topographic map were taken in 1939, long after the structure apparently ceased to exist. A second structure appears on the 1953 USGS Steele Peak topographic map, south of Perry Street at the junction of Patterson Avenue and Hwy. 395. It was not present on the 1942 USACOE Riverside map and does not

appear on the 1967 USGS Steele Peak Quadrangle. No information could be found regarding this structure. Archival records between 1939 and 1949 do not list any buildings in this location. Based on cartographic evidence, it is probable that the building was constructed in 1950 and ceased to exist by 1966, the date of aerial photos for the 1967 USGS Steele Peak topographic map.

A search of the *Sacred Lands File* for the subject property was completed on July 19, 2023, by the Native American Heritage Commission (NAHC). Based on the provided USGS quadrangle information, the search had positive results. Project scoping letters were sent to 27 tribes listed by the NAHC as being interested in development in the Perris area. At this time, responses have been received from the Rincon Band of Luiseño Indian (July 28, 2023) and the Agua Caliente Band of Cahuilla Indians (August 3, 2023). The Rincon Band of Luiseño Indians determined that the subject property is within the Traditional Use Area of the Luiseño Indians and within their specific Area of Historic Interest (AHI). As such they are traditionally and culturally affiliated with the project area. After reviewing the provided documents and their internal information, no information is available for Rincon to share at this time. Therefore, the Tribe has no comments and does not request consultation. They recommend that local tribes be contacted as they are closer to the project and may have pertinent information. Rincon did request that a copy of the final cultural resources report be forwarded to them. The Agua Caliente Band of Cahuilla Indians suggested that a cultural resources inventory of the project area by a qualified archaeologist be conducted prior to any development activities in the area and requested a copy of the records search with associated survey reports and site records from the information center and copies of any cultural resource documentation (report and site records) generated in connection with this project.

Considering the aforementioned facts, the probability of a subsurface cultural deposit existing within the property boundaries is relatively low. The NAHC Sacred Lands File Search resulted in positive findings, based on the USGS quadrangle information provided, but responding tribes did not offer additional information regarding the subject property and did not recommend grading request monitoring. Since no historical era cultural resources remain on the property and none of the responding tribes requested grading monitoring, neither further research nor archaeological monitoring is recommended. Despite not recommending archaeological grading monitoring, it is nonetheless recommended that prior to issuance of grading permits, a Riverside County/City of Perris qualified archaeologist be retained to serve as the Project Archaeologist. The Project Archaeologist shall provide preconstruction Cultural Sensitivity Training for all construction personnel, establishing required procedures and protocol in the event that cultural resources are discovered during the course of ground disturbing activities. The Project Archaeologist will also be available to investigate any buried cultural resources upon notification by the construction supervisor. Should any cultural resources be discovered during the course of ground disturbing

activities, said activities should be halted or diverted until the Project Archaeologist can evaluate the resources, make a determination of their significance, and recommend appropriate treatment measures to mitigate impacts to the resources from the project, if found to be significant. If the cultural resources are of Native American origin, a representative of one of the tribes who responded to the project scoping letters shall also be notified so that they can evaluate the resource(s) and make recommendations. If human remains are encountered unexpectedly during implementation of the project, compliance with State Health and Safety Code Section 7050.5 is required, with no further disturbances to the land until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98.

CONSULTANT CERTIFICATION

The undersigned certifies that the attached report is a true and accurate description of the results of the Phase I Cultural Resources Assessment described herein.

October 22, 2023

Jean A. Keller, Ph.D. Date

Riverside County Certificate No. 232

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1892 - 1895: Index Map
Assessor Map T4S R4W Sec1
Property Ownership Resister T4S R4W Sec1
1896 - 1899: Index Map
Assessor Map T4S R4W Sec1
Property Ownership Register T4S R4W Sec1

1899 - 1907: Index Map
Assessor Map T4S R4W Sec1
Property Ownership Register T4S R4W Sec1
1907 - 1913: Index Map
Assessor Map T4S R4W Sec1
Property Ownership RegisterT4S R4W Sec1
1913 – 1919: Index Map
Assessor Map T4S R4W Sec1
Property Ownership Register T4S R4W Sec1
1920 – 1926: Index Map
Assessor Map T4S R4W Sec1
Property Ownership Register T4S R4W Sec1
1926 – 1932: Index Map
Assessor Map T4S R4W Sec1
Property Owner Register T4S R4W Sec1
1933 - 1938: Index Map
Assessor Map T4S R4W Sec1
Property Ownership Register T4S R4W Sec1
1939 - 1943: Index Map
Assessor Map T4S R4W Sec1
Property Ownership RegisterT4S R4W Sec1
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1942 Map: Perris, Calif. (15’, 1:62,500); aerial photos taken in 1939
Map: Riverside, Calif. (15’, 1:62,500); aerial photos taken in 1939

USGS (United States Geological Survey, U.S. Department of the Interior)
1901 Map: Elsinore, Calif. (30’, 1:125,000); surveyed in 1897-1898
1901 Map: Riverside, Calif. (90’, 1:125,000); surveyed in 1897-1898
1953 Map: Perris, Calif. (7.5’, 1:24,000); aerial photos taken in 1951
1959 Map: Santa Ana, Calif. (1:250,000); aerial photos taken in 1955
1967 Map: Perris, Calif. (7.5’, 1:24,000); aerial photos taken in 1966
1967 Map: Steele Peak, Calif. (7.5’, 1:24,000); aerial photos taken in 1966
1973 Map: Perris, Calif. (7.5’, 1:24,000); 1967 photorevised, 1973 aerial photos
1973 Map: Steele Peak, Calif. (7.5’, 1:24,000): 1967 photorevised, 1973 aerial photos
1979 Map: Santa Ana, Calif. (1:250,000); 1959 edition revised 1979

1979 Map: Perris, Calif. (7.5', 1:24,000): 1973 edition photoinspected 1978
1979 Map: Steele Peak, Calif. (7.5', 1:24,000): 1973 edition photoinspected 1978

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APPENDIX

Records Search Results
Sacred Lands File Search Results
Tribal Response to Project Scoping Letters

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-001183	CA-RIV-001183		Site	Historic	AH01	1977 (S. Hammond, n/a)	RI-00534, RI-03190
P-33-003500	CA-RIV-003500		Site	Prehistoric	AP04	1989 (R.E. Parr, Archaeological Research Unit, UC Riverside, CA.); 2004 (Josh Smallwood); 2004 (Josh Smallwood)	RI-02451, RI-04766, RI-04767
P-33-003501	CA-RIV-003501		Site	Prehistoric	AP04	1989 (R.E. Parr, Archaeology Research Unit, UC Riverside, CA.); 2004 (Josh Smallwood); 2004 (Josh Smallwood)	RI-02451, RI-04766, RI-04767
P-33-005775	CA-RIV-005516H	Other - March Air Force Base Well No. 6; Other - Well House inside compund of former Gregory Radio Range; Other - Buliding 3002	Building	Historic	HP34	1994 (E. Diehl/R. Montijo, EARTH TECH); 1999 (Cary D. Cotterman, Tetra Tech)	RI-01010, RI-04299, RI-05550
P-33-007623		Other - Liberty Bell Café	Structure	Historic	AH16; HP06	1982 (Betty Harmon, Riverside County Historical Comm.); 1983 (John Snyder, Caltrans); 1999 (Bruce Love, CRM TECH)	RI-04211
P-33-007639		Other - Ser. No. 33-2370-37	Building	Historic	HP02	1982 (Betty Harmon, Riverside County Historical Comm.)	
P-33-007640			Building	Historic	HP02	1982 (B. Harmon, Riverside County Historical Comm.)	
P-33-007650		Other - Boyd Tanks Co.; Other - Camp Haan Barracks; Other - Ser. No. 33-2370-52	Building	Historic	HP06; HP34	1982 (Betty Harmon, Riverside County Historical Comm.)	
P-33-007674		Other - Val Verde Elementary School; Other - Ser. No. 33-2370-77	Building	Historic	HP15	1982 (Betty Harmon, Riverside County Historical Comm.); 1999 (Bruce Love, CRM TECH)	RI-04211
P-33-008700		Other - CRM TECH 373-2H; Other - OLCI	Site	Historic	AH05	1999 (Bruce Love, CRM TECH, Riverside, CA); 2014 (Jean A. Keller, Cultural Resources Consultant); 2017 (Pat Moloney, Renee Elder, Applied EarthWorks, Inc.)	RI-04211, RI-10345
P-33-008701		Other - CRM TECH 373-3H	Other	Historic	AH06	1999 (Bruce Love, CRM TECH, Riverside, CA); 2017 (Pat Maloney, Renee Elder, Applied EarthWorks, Inc.)	RI-04211, RI-10345

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-008702		Other - CRM TECH 373-4H	Site	Historic	AH02	1999 (Bruce Love, CRM TECH, Riverside, CA)	RI-04211, RI-10345
P-33-008703		Other - CRM TECH 373-5H	Site	Historic	AH02	1999 (Bruce Love, CRM TECH, Riverside, CA)	RI-04211
P-33-011265	CA-RIV-006726H	Other - FS 51a, b, c, d; Other - Colorado River Aqueduct; Other - SRI-9990; Voided - 33-011138; Other - Colorado River Aqueduct-Old Aqueduct Road; Colorado River Aqueduct, HAER-2669	District, Element of district	Historic	HP20	2000 (Goodman, J, and J. Neves, SWCA, Inc.); 2001 (Dice, Michael, L& L Environmental, Inc.); 2003 (Boggs, Brian, Gini Austerman, and Lashawn Lee, Statistical Research, Inc.); 2005 (Stacie Wilson, Andrea Craft, and Michael Wise, Mooney Jones & Stokes); 2005 (Beedle, Peggy, Applied EarthWorks, Inc.); 2008 (DeGiovine, M., T. Martin, S. Wilson, and K. Chimel, ICF Jones & Stokes); 2009 (DeGiovine, M., T. Martin, S. Wilson, and K. Chimel, ICF Jones & Stokes); 2009 (Brent Johnson); 2011 (Scott Kremkau, SRI); 2016 (Shannon Loftus, ACE Environmental, LLC.); 2020 (Andrew Garrison, Brian F. Smith and Associates)	RI-04424, RI-06070, RI-06707, RI-06920, RI-07206, RI-07671, RI-08374, RI-08453, RI-09167

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-015743	CA-RIV-008196	National Register - 6Z; Other - BNSF Railroad; Other - San Jacinto Valley Railway; Other - Santa Fe Valley Railroad; Other - CRM TECH 2225-1H; Other - Burlington Northern Santa Fe Railroad; Other - 3CS; Other - SJ-32; Other - CRM TECH 2917-1; Other - CRM TECH 3084; Other - SRI-3145	Site	Historic	AH07	2005 (P.Easter. And P. Beedle, Applied EarthWorks, Inc.); 2006 (Peggy Beedle, Applied EarthWorks, Inc.); 2007 (Theordore Cooley, Jones & Stokes); 2007 (Craft, Andrea, Jones and Stokes); 2008 (Daniel Ballester, CRM TECH); 2009 (M.C. Hamilton, J. George, Applied EarthWorks, Inc.); 2010 (S. Justus and A. Giacinto, ASM Affiliates); 2011 (Joshua Trampier, Statistical Research, Inc.); 2012 (Stacie Wilson and Jill Gibson, AECOM); 2012 (C. Cotterman, E. Denniston, ECORP Consulting); 2015 (Daniel Ballester, CRM TECH); 2016 (Michael Hogan, CRM TECH)	RI-07528, RI-07833, RI-08955, RI-08980, RI-09002, RI-09021, RI-09364, RI-10069, RI-10160
P-33-016041		Other - LSA-JCV531-I-6	Other	Historic	AH16	2005 (Lawson, Nat, Phil Fulton, and Lesley Whittaker, LSA Associates, Inc.)	
P-33-016043		Other - LSA-JCV531-I-8	Other	Prehistoric	AP16	2005 (Lawson, Nat, and Dan Ewers, LSA Associates, Inc.)	
P-33-016044		Other - LSA-JCV531-I-9	Other	Prehistoric	AP16	2005 (Ewers, Dan, and Nat Lawson, LSA Associates, Inc.)	
P-33-016239	CA-RIV-008390	Other - JCV531-S-105	Site	Historic	AH02; AH03; AH04	2005 (Ewers, Daniel, Lesley Whittaker, and Nat Lawson, LSA Associates, Inc.)	
P-33-016251	CA-RIV-008402	Other - Perris 27-2	Site	Prehistoric	AP04	2007 (Keller, Jean A., Keller); 2022 (Andrew J. Garrison, Brian F. Smith & Associates)	RI-10775
P-33-016544	CA-RIV-008691	Other - MCP-AE-S-198	Site	Prehistoric	AP04	2006 (Bouscaren, C., J. Farrugia, R. Lichtenstein, Applied EarthWorks, Inc.)	
P-33-019869	CA-RIV-010114	Other - LSA-JCV531-S-24	Site	Historic	AH04	2005 (Phil Fulton, Nat Lawson, Lesley Whitaker, LSA Associates, Inc)	
P-33-020334	CA-RIV-010260	Other - CRM TECH 2592-1	Site	Historic	AH05	2012 (Daniel Ballester, CRM Tech)	RI-08791

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-024092		Other - OLC II	Other	Historic	AH05	2013 (Jean A. Keller, Cultural Resources Consultant.)	
P-33-024867		Other - AE-345-1H (Lateral B-Oleander Avenue)	Structure	Historic	HP20	2016 (Josh Smallwood, Applied EarthWorks, Inc.)	
P-33-024868		Other - AE-3454-2H	Structure	Historic	HP37	2016 (Josh Smallwood, Applied EarthWorks, Inc.)	
P-33-026856		Other - ICF-ISO-08	Other	Prehistoric	AP15	2016 (Stephen Byrne, ICF)	
P-33-028172		Other - LSA-PG11701-S-1	Site	Historic	AH04	2018 (Riordan Goodwin, LSA Associates, Inc.)	
P-33-028522	CA-RIV-012857	Other - Temp-2	Site	Historic	AH02; AH16; HP33	2018 (Andrew Garrison, Brian F. Smith and Associates, Inc.); 2021 (Jillian L.H Conroy, Brain F Smith and Associates)	
P-33-028523	CA-RIV-012858	Other - Temp-1	Site	Historic	AH02; AH16; HP33	2018 (Andrew J. Garrison, Brian F. Smith and Associates, Inc.)	
P-33-028563	CA-RIV-012873	Other - Temp-1	Site	Prehistoric	AP04	2018 (Andrew Garrison and James Shrieve, Brian F. Smith and Associates, Inc.); 2019 (Andrew Garrison, Brian F. Smith and Associates, Inc.); 2023 (Katelyn R Kepka, BFSA Environmental)	
P-33-028575		Other - HHIR Isolate-1	Other	Prehistoric	AP02	2018 (W.R. Gillean, J.M. Sanka, L&L Environmental, Inc)	RI-10783
P-33-028588	CA-RIV-012877	Other - SP-001	Site	Historic	AH16	2017 (Robert Cunningham, ECORP Consulting, Inc.)	RI-10471
P-33-028589	CA-RIV-012878	Other - SP-002	Site	Historic	AH06	2017 (Robert Cunningham, ECORP Consulting, Inc.)	RI-10471
P-33-028621		Other - Temp-1	Object	Historic	AH02; AH05; AH07	2019 (Andrew J. Garrison, RPA Brian F. Smith and Associates, INC)	
P-33-028851	CA-RIV-012938	Other - LSA-JCV531-S-110	Site	Historic	AH02; AH03	2005 (Phil Fulton, Chris Roberts, LSA Associates, Inc.)	
P-33-029425	CA-RIV-013175	Temp -1	Site	Historic	AH02; HP04	2022 (Andrew J Garrison, Brian F. Smith and Assocites Inc)	
P-33-029442		Temp 1 4517 Wade Avenue	Building	Historic	HP03	2022 (elenea C Goralogia, Brian F Smith and Associates)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-029449	CA-RIV-013192	Other - Site Temp -1	Site	Historic	AH15	2023 (Katelyn Kepka, BFSA Environmental Services, A Perennial Company)	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-00186	NADB-R - 1080236; Submitter - 0167; Voided - MF-0173	1975	Helen Wells	Archaeological Impact Report: Eastern Municipal Water District, Riverside County, California: PL 984 Water Systems Addition	Archaeological Research Unit, U.C. Riverside	33-000418
RI-00677	NADB-R - 1080728; Voided - MF-0601	1979	Joan Oxendine	Archaeological Assessment of PM 14880	Riverside County Planning Department	
RI-00678	NADB-R - 1080729; Voided - MF-0602	1979	Joan Oxendine	Archaeological Assessment of PM 14881	Riverside County Planning Department	
RI-01166	NADB-R - 1081277; Voided - MF-1113	1991	Roger Desautels	Archaeological Survey Report on the Proposed Cajalco Expressway in the Lake Mathews-Mead Valley Area of the County of Riverside	Scientific Resource Surveys, Inc., Santa Ana, CA	33-000816, 33-000817, 33-000818, 33-001648, 33-001649
RI-02084	NADB-R - 1082515; Voided - MF-2278	1987	HAMMOND, S.R.	NEGATIVE ARCHAEOLOGICAL SURVEY REPORT: ROUTE 215, P.M. 27.4/33.7	AUTHOR(S)	
RI-02450	NADB-R - 1082941; Voided - MF-2681	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-100-001 LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	
RI-02451	NADB-R - 1082942; Voided - MF-2682	1989	PARR, ROBERT E	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-050-006 LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	33-003500, 33-003501
RI-02452	NADB-R - 1082943; Voided - MF-2683	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSER'S PARCEL 314-040-004, LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	
RI-02453	NADB-R - 1082944; Voided - MF-2684	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-040-006, LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	
RI-02454	NADB-R - 1082945; Voided - MF-2685	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-040-020-023, LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	
RI-02455	NADB-R - 1082946; Voided - MF-2686	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-110-001, LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-02456	NADB-R - 1082947; Voided - MF-2687	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-120-009, LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	
RI-02457	NADB-R - 1082948; Voided - MF-2688	1989	PARR, ROBERT E.	AN ARCHAEOLOGICAL ASSESSMENT OF ASSESSOR'S PARCEL 314-100-002, LOCATED NEAR VAL VERDE IN WESTERN RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	
RI-02459	NADB-R - 1082951; Voided - MF-2690	1988	KELLER, JEAN S.	AN ARCHAEOLOGICAL ASSESSMENT OF PLOT PLAN 10,873, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR(S)	
RI-03190	NADB-R - 1083752; Other - 89-90; Voided - MF-3408	1990	PEAK AND ASSOCIATES	PART III, ADDENDUM TO: CULTURAL RESOURCES ASSESSMENT OF AT&T'S PROPOSED SAN BERNARDINO TO SAN DIEGO FIBER OPTIC CABLE, SAN BERNARDINO, RIVERSIDE, AND SAN DIEGO COUNTIES, CALIFORNIA	PEAK AND ASSOCIATES	33-000805, 33-001017, 33-001057, 33-001183, 33-002013, 33-002696, 33-002701, 33-002711, 33-002725
RI-03262	NADB-R - 1083853; Voided - MF-3494	1991	MACKO, MICHAEL E.	ARCHAEOLOGICAL ASSESSMENT OF THE PROPOSED OAK PARK COMMERCE CENTER, PARCEL MAP 25101, ASA #18, WITH RELATED PLOT PLANS 12468 AND 12470, RIVERSIDE COUNTY, CALIFORNIA	MACKO ARCHAEOLOGICAL CONSULTING	
RI-03283	NADB-R - 1083879; Voided - MF-3516	1991	DEMCAK, CAROL R.	ARCHAEOLOGICAL ASSESSMENT OF TENTATIVE PARCEL 26672, A 26.07 ACRE PROPERTY LOCATED NEAR PERRIS (PERRIS QUADRANGLE), COUNTY OF RIVERSIDE	ARCHAEOLOGICAL RESOURCE MANAGEMENT CORP., Fullerton, CA	
RI-03583	NADB-R - 1084296; Voided - MF-3853	1992	DROVER, CHRISTOPHER	AN ARCHAEOLOGICAL ASSESSMENT OF "A" STREET NORTH AND SOUTH IMPROVEMENTS AND PROPOSED EMWD PUMP STATION SITE, RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT, NORTH OF PERRIS, CALIFORNIA.	AUTHOR	
RI-03789	NADB-R - 1084633; Voided - MF-4131	1989	DROVER, CHRISTOPHER	A CULTURAL RESOURCE INVENTORY: OAKWOOD INDUSTRIAL PARK--TENTATIVE PARCEL MAP 24110, NEAR PERRIS, CALIFORNIA	AUTHOR	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-03797	NADB-R - 1084643; Voided - MF-4140	1994	KELLER, JEAN	A PHASE I CULTURAL RESOURCES ASSESSMENT OF RIVERSIDE GRAND PRIX, 245.57 ACRES OF LAND NEAR PERRIS, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	33-005355, 33-005356, 33-005357, 33-005358, 33-005359, 33-005360, 33-005361, 33-005362, 33-005363, 33-005364, 33-005365, 33-005366, 33-005367, 33-005368, 33-005369, 33-005370, 33-005371, 33-005372, 33-005373, 33-005374, 33-005375, 33-005376, 33-005377, 33-005378, 33-005379, 33-005380, 33-005381, 33-005382, 33-005383, 33-005384, 33-005385, 33-005386, 33-005388, 33-005389, 33-005390, 33-005391, 33-005392, 33-005393, 33-005394, 33-005395
RI-04154	NADB-R - 1085350; Voided - MF-4632	1998	MASON, ROGER, PHILIPPE LAPIN, and WAYNE H. BONNER	CULTURAL RESOURCES RECORDS SEARCH AND SURVEY FOR A PACIFIC BELL MOBILE TELECOMMUNICATIONS FACILITY: CM 126-11 NEAR PERRIS, RIVERSIDE COUNTY, CALIFORNIA	CHAMBERS GROUP, INC.	
RI-04211	NADB-R - 1085418; Submitter - 373; Voided - MF-4683	1999	LOVE, BRUCE and BAI "TOM" TANG	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES PERRIS VALLEY INDUSTRIAL CORRIDOR INFRASTRUCTURE PROJECT NEAR THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA.	CRM TECH	33-007623, 33-007674, 33-008699, 33-008700, 33-008701, 33-008702, 33-008703
RI-04299	NADB-R - 1085563; Voided - MF-4782	1999	COTTERMAN, CARY D.	HISTORIC STRUCTURE EVALUAION OF BUILDING 3002, MARCH AIR RESERVE BASE, RIVERSIDE COUNTY, CALIFORNIA.	TETRA TECH, INC.	33-005775
RI-04404	NADB-R - 1085736; Voided - MF-4913	2000	JONES AND STOKES ASSOCIATES, INC.	FINAL CULTURAL RESOURCES INVENTORY REPORT FOR THE WILLIAMS COMMUNICATIONS, INC., FIBER OPTIC CABLE SYSTEM INSTALLATION PROJECT, RIVERSIDE TO SAN DIEGO, CALIFORNIA VOL I-IV.	JONES AND STOKES ASSOCIATES, INC.	33-000816, 33-000817, 33-000862, 33-001845, 33-002970, 33-003081, 33-003839, 33-004202, 33-004624, 33-004744, 33-004768, 33-007587, 33-007601, 33-008105, 33-008172, 33-009772, 33-009773, 33-009774, 33-009775, 33-009776
RI-04475	NADB-R - 1085836	2002	SANDELIN, LINDA	A CULTURAL RESOURCE INVENTORY OF 3 ACRES LOCATED ON THE STEELE PEAK 7.5' QUAD, 19248 HARVILL AVENUE, APN:317-110-028-1, PERRIS, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-04766	NADB-R - 1086128; Submitter - CRM TECH Contract #1293	2004	HOGAN, MICHAEL, BAI TANG, and JOSH SMALLWOOD	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, SPECIFIC PLAN NO. 341/EIR 466, NEAR THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH, Riverside, CA	33-003500, 33-003501, 33-005386, 33-005389, 33-005390, 33-005391, 33-005392, 33-005394, 33-013446, 33-013447, 33-013449, 33-013450, 33-013488
RI-04767	NADB-R - 1086129; Submitter - CRM TECH Contract #1374	2004	HOGAN, MICHAEL, BAI TANG, JOSH SMALLWOOD, and DICKEN EVERSON	ARCHAEOLOGICAL TESTING AND SITE EVALUATIONS, SPECIFIC PLAN NO. 341/466, NEAR THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH, Riverside, CA	33-003500, 33-003501, 33-005386, 33-005389, 33-005390, 33-005391, 33-005392, 33-005393, 33-005394, 33-013446, 33-013447, 33-013448, 33-013449, 33-013450, 33-013788
RI-04963	NADB-R - 1086325; Submitter - CAT-04-547	2005	HOOVER, ANNA M., KRISTIE R. BLEVINS, and HUGH WAGNER	A PHASE I ARCHAEOLOGICAL AND PALEONTOLOGICAL SURVEY REPORT ON THE OLEANDER PROPERTY, APNS 295-310-011, -048 & -052, 69.41-ACRES, COUNTY OF RIVERSIDE, CALIFORNIA.	L&L ENVIRONMENTAL, INC.	
RI-05027	NADB-R - 1086389; Submitter - Job No. 00-5-00-500	2000	Jeanette A. McKenna	A PHASE I CULTURAL RESOURCES INVESTIGATION OF THE VESTA TELECOMMUNICATIONS, INC. FIBER OPTIC ALIGNMENT, RIVERSIDE COUNTY TO SAN DIEGO COUNTY, CALIFORNIA	MCKENNA ET AL.	
RI-05444	NADB-R - 1086807; Submitter - 08-05-09-1121	2005	MCKENNA, JEANETTE	A PHASE I CULTURAL RESOURCES INVESTIGATION OF THE RIDGE PROPERTY IN THE CITY OF PERRIS, RIVERSIDE COUNTY, CA	MCKENNA ET AL	
RI-05548	NADB-R - 1086911	2005	COTTERMAN, CARY D., EVELYN N. CHANDLER, and ROGER D. MASON	CULTURLA RESORUCES SURVEY OF A 1-ACRE PARCEL IN PERRIS, RIVERSIDE COUNTY, CA (APN 314-110-030)	ECORP CONSULTING, INC.	
RI-05550	NADB-R - 1086913	1995	EARTH TECH	PHASE I ARCHAEOLOGICAL SURVEY OF THE GREGORY SITE, MARCH AIR FORCE BASE, RIVERSIDE COUNTY, CA	EARTH TECH	33-005775
RI-05713	NADB-R - 1087076; Submitter - CA-5365C	2005	Lorna Billat	Letter Report: Historic Consultation for Nextel of California (Nextel) Wireless Telecommunications Service (WTS) Facility Project Chelsea/ CA-5389A, in Perris, Riverside County, California.	EarthTouch, Inc., Layton, UT	
RI-06577	NADB-R - 1087944; Submitter - CONTRACT #1821A	2006	TANG, BAI "TOM", MICHAEL HOGAN, THOMAS SHACKFORD, and JOHN J. EDDY	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, RADOS-PERRIS DISTRIBUTION CENTER, ASSESSOR'S PARCEL NO. 30-050-002, IN THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-06579	NADB-R - 1087946; Submitter - CRM TECH Contract #1944A	2006	CLARENCE BODMER, ROBERT PORTER, and LAURA H. SHAKER	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, ALL AMERICAN ASPHALT PLANT, ASSESSOR'S PARCEL NO. 30-020-026, IN THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH, Riverside, CA	
RI-06746	NADB-R - 1088113; Other - LSA JOB NO. CBO0601	2006	AUSTERMAN, VIRGINIA	CULTURAL RESOURCES ASSESSMENT: PERRIS LOTS 3, 4, AND 5 PROJECT, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	LSA ASSOCIATES, INC.	
RI-06898	Submitter - Job no. 09-06-10-1245	2006	McKenna, Jeanette A.	A Phase 1 Cultural Resources, Investigation of the Perris 2, Project Area in the City, of Perris, Riverside, Co., California	McKENNA et al., Whittier, CA	
RI-06914	Other - LSA Job No. GTX330	2003	Jim Harrison	Letter Report: Biological and Cultural Resources Due Diligence Regarding the 500-Acre Watson Land Company-Perris Property in Riverside County, California	LSA Associates, Inc., Irvine, CA	33-007648
RI-07538	Submitter - CRM TECH Contract #2109A	2007	Tang, Bai "Tom", Michael Hogan, Clarence Bodmer, Josh Smallwood, and Melissa Hernandez	Cultural Resources Technical Report, North Perris Industrial Specific Plan, City of Perris, Riverside County, California	CRM TECH	
RI-07568		2007	McGinnis, Patrick	ARCHAEOLOGICAL SURVEY REPORT OF THE I-215/VAN BUREN BOULEVARD INTERCHANGE PROJECT RIVERSIDE COUNTY, CALIFORNIA	TIERRA ENVIRONMENTAL SERVICES	
RI-07569		2007	Smith, Brian F. and Clifford, James	CULTURAL RESOURCES SURVEY FOR THE PATTERSON AVENUE PROJECT, RIVERSIDE COUNTY, CALIFORNIA APN 317-140-016&047	BRIAN F. SMITH AND ASSOCIATES	
RI-07570		2007	Rosenberg, Seth A.	A Phase I Archaeological Assessment for the Limos by Tiffany Project, APN 317-240-052; PP22532; FTA2006-26	Brian F. Smith and Associates	
RI-07613	Other - 2007CWA104	2008	Patterson, J. and Tsunoda, K.	ARCHAEOLOGICAL SURVEY REPORT FOR SOUTHERN CALIFORNIA EDISON COMPANY O&M - 2008 B1355 ANNUAL CAPACITOR PROJECT FOR POLE #2037338E ON THE CHANEY 12KV CIRCUIT RIVERSIDE COUNTY, CALIFORNIA (WO#6077-5597, AI#7-5504)	JONES & STOKES	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-07620		2005	CLIFFORD, J. and SMITH, B.	A CULTURAL RESOURCES SURVEY FOR THE IDI PERRIS PROJECT COUNTY OF RIVERSIDE: APNS 302-080-011 THROUGH 302-080-017, 302-090-016, 302-090-017	BRIAN F. SMITH AND ASSOCIATES	
RI-08031	Submitter - LA3121A	2009	Carla Allred	Letter Report: Proposed Cellular Tower Project(s) in Riverside County, Site Number(s)/Name(s): LA-3411A/EMWD Rancho Drive TCNS# 49589	Earth Touch Inc, Layton, Utah	
RI-08272		1995	William Manely Consulting and Earth Tech	Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California	Michael Brandman Associates	
RI-08351		2010	Bai "Tom" Tang, Thomas Shackford, Terri Jacquemain, and John Eddy	Historical / Archaeological Resources Survey Report: Rados-Perris Distribution Center, Assessor's Parcel Number 303-050-002, in the City of Perris County of Riverside, California.	CRM TECH	
RI-08433		2007	Katherine H. Pollack	Archaeological Assessment of Southern Half of Hammock 33kV Overhead DSP Project, March Air Reserve Base, Riverside Countym California.	Southern California Edison	
RI-08515	Other - SCE PO# 4500179336; Other - WO's 6077-4800: 0-4849, E-4861, 0-4876,	2010	Jay K. Sanders	Arcaeological Survey for Southern California Edisons Poles Replacement Project: Riverside County, California	Chambers Group, Inc.	
RI-08771		2010	Bai 'Tom' Tang	Preliminary Historical/Archaeological Resource Study Southern California Regional Rail Authority (SCRRA) Perris Valley Line Positive Train Control (PTC) Project In and near the Cities of Riverside, Perris, and Menifee Riverside County, California CRM TECH Contract No. 2444	CRM TECH	
RI-08791		2012	Bai 'Tom' Tang, Michael Hogan, Deirdre Encarnacion, Daniel Ballester, and Nina Gallardo	Historical/Archaeologcial Resources Survey Report; Assessor's Parcel Nos. 302-030-003, -006, and -011	CRM TECH	33-020334
RI-08792		2012	Rebecca S. Orfila	Letter Report: Cultural Resourece Records Search Results for the SCE Co. Perris Rule 20-B Underground Project	RSOC	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-08860	Submitter - CRM Tech Project No. 2592/2636	2012	Bai "Tom" Tang and Daniel Ballester	Addendum to Historical/Archaeological/Paleontological Resources Survey JMM Trailer Storage Facility Project, City of Perris, Riverside County, California	CRM Tech	
RI-08893	Submitter - CRM TECH No.2665	2012	Bai "Tom" Tang	Letter Report: Historical/Archaeological Resources Analyses: Discount Tire Cross Dock Facility; a Portion of Specific Plan Co. 341-EIR 466	CRM TECH	
RI-08986	Other - Case Number: PP20699R1	2013	Joan George and Vanessa Mirro	Cultural Resources contruction Monitoring: Knox Logistics Center Project, Riverside County	Applied Earth Works, Inc.	33-001378
RI-09054		2013	Jean A. Keller	A PHASE I CULTURAL RESOURCES ASSESSMENT OF TENTATIVE PARCEL MAP 36512, APN 314-170-005, 013 thru 016; 314-140-056; 314-180-001, 007, 009,010, 011,013,014	Cultural Resources Consultant	
RI-09277		2015	Daniel Ballester	Archaeological/Paleontological Monitoring Program ORE Industrial; Perris Valley Logistics; Tentative Parcel Map No. 36010 Project in the City of Perris, Riverside County, California CRM TECH Contract No. 2783	CRM TECH	
RI-09416		2014	Clarence L. Hoff and Brian F. Smith	Phase I Cultural Resources Survey for the Sedrak Fairfield Inn Project County of Riverside	Brian F. Smith and Associates, Inc.	
RI-09848		2016	Brian F. Smith	Phase I Cultural Resources Survey of APNs 316-210-014 Through -018, City of Moreno Valley, County of Riverside	Brian F. Smith & Associates	
RI-10015	Other - Lateral B-5 to Oleander Channel Project	2016	Josh Smallwood, Tiffany Clark, and Roberta Thomas	Cultural Resource Assessment of the Lateral B-5 to Oleander Channel Project, City of Perris, Riverside County, California.	Applied EarthWorks, Inc.	
RI-10019	Other - Project No. EPD16069	2017	TRIA BELCOURT	PHASE 1 CULTURAL RESOURCES ASSESSMENT: CADO INDUSTRIAL CENTER PROJECT UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA	MATERIAL CULTURE CONSULTING, INC.	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-10199	Other - 08-RIV-215 PM 28.0/34.3; Other - 08-RIV-MCP PM 0.0/16.3; Other - E.A. 08-0F3200 (PN 0800000125)	2014	PHIL FULTON	DISCOVERY AND MONITORING PLAN FOR THE MID COUNTY PARKWAY	LSA ASSOCIATES INC	33-016598, 33-019862, 33-019863, 33-019864, 33-019865, 33-019866
RI-10345		2018	Justin Castells and Joan George	CULTURAL RESOURCE ASSESSMENT FOR THE MARKHAM/PATTERSON PROJECTION, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA	Applied EarthWorks, Inc.	33-008700, 33-008701, 33-008702
RI-10393		2018	IVAN STURDWICK	RESULTS OF ARCHAEOLOGICAL MONITORING FOR THE 68.48 ACRE OPTIMUS LOGISTICS CENTER PROJECT AT I-215 AND RAMONA EXPRESSWAY IN PERRIS, RIVERSIDE COUNTY, CALIFORNIA (TENTATIVE PARCEL MAP 35682	LSA	
RI-10471		2017	Robert Cunningham and Wendy Blumel	Cultural Resources Inventory 0.7-Acre Property in the City of Perris, Riverside County, California	ECORP Consulting, Inc.	33-028588, 33-028589
RI-10490		2018	Andrew Myers and Wendy Blumel	Cultural Resources Investigation Val Vede Unified School District Project	ECORP Consulting, Inc Enviornmental Consultants	
RI-10759		2019	Andrew D. Miller	Phase I Cultural Resource Assessment for the Duke Perry & Barret Project, City of Perris, Riverside County, California	Applied EarthWorks, Inc.	
RI-10764		2019	Brian F. Smith	Cultural Resources Monitoring Report for the Duke Warehouse Project, PM No. 37187, City of perris, riverside County, California	Brian F. Smith and Associates, Inc.	
RI-10775	Agency Nbr - Planning Case No. 36950	2015	Brian F. Smith, Jennifer R. Kraft, and Mary M. Lenich	A PHASE I AND II CULTRURAL RESOURCES ASSSESSMENT FOR THE DECKER PARCELS I PROJECT PLANNING CASE NO 36950, RIVERSIDE COUNTY, CALIFORNIA	Brian F. Smith and Associates, Inc.	33-016250, 33-016251
RI-10783		2019	Jennifer M. Sanka, William R. Gilean, and Leslie Nay Irish	Final Phase IV Cultural Resources Monitoring Report Farmer Boys Restaurant Project Perris Area, Riverside County, California	L&L Environmental, Inc.	33-028575

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July 19, 2023

Jean A. Keller
Cultural Resources Consultant

Via Email to: 4jakeller@gmail.com

Re: Perris Gateway (APN-914-170-020; 314-180-023, 024) Project, Riverside County

Dear Dr. Keller:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Pechanga Band of Indians on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Column1	Column2	Column3
Native American Heritage Commission		

Tribe Name	Fed (F) Non-Fed (N)	Contact Person
Agua Caliente Band of Cahuilla Indians	F	Patricia Garcia-Plotkin, Director
Agua Caliente Band of Cahuilla Indians	F	Reid Milanovich, Chairperson
Augustine Band of Cahuilla Mission Indians	F	Amanda Vance, Chairperson
Cabazon Band of Mission Indians	F	Doug Welmas, Chairperson
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer
Cahuilla Band of Indians	F	Daniel Salgado, Chairperson
Cahuilla Band of Indians	F	BobbyRay Esaprza, Cultural Director
Los Coyotes Band of Cahuilla and Cupeño Indians	F	Ray Chapparosa, Chairperson
Morongo Band of Mission Indians	F	Ann Brierty, THPO

Column1	Column2	Column3
Native American Heritage Commission		
Morongo Band of Mission Indians	F	Robert Martin, Chairperson
Pala Band of Mission Indians	F	Alexis Wallick, Assistant THPO
Pala Band of Mission Indians	F	Shasta Gaughen, Tribal Historic Preservation Officer
Pechanga Band of Indians	F	Paul Macarro, Cultural Resources Coordinator
Pechanga Band of Indians	F	Mark Macarro, Chairperson
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee
Ramona Band of Cahuilla	F	Joseph Hamilton, Chairperson
Ramona Band of Cahuilla	F	John Gomez, Environmental Coordinator
Rincon Band of Luiseno Indians	F	Denise Turner Walsh, Attorney General

Column1	Column2	Column3
Native American Heritage Commission		
Rincon Band of Luiseno Indians	F	Joseph Linton, Tribal Council/Culture Committee Member
Rincon Band of Luiseno Indians	F	Laurie Gonzalez, Tribal Council/Culture Committee Member
Rincon Band of Luiseno Indians	F	Cheryl Madrigal, Cultural Resources Manager/Tribal Historic Preservation Officer
Santa Rosa Band of Cahuilla Indians	F	Lovina Redner, Tribal Chair
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer
Torres-Martinez Desert Cahuilla Indians	F	Cultural Committee

Column4	Column5	Column6	Column7

Contact Address	Phone #	Fax #	Email Address
5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 699-6907	(760) 699-6924	ACBCI-THPO@aguacaliente.net
5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 699-6800	(760) 699-6919	laviles@aguacaliente.net
84-001 Avenue 54 Coachella, CA, 92236	(760) 398-4722	(760) 369-7161	hhaines@augustinetribe.com
84-245 Indio Springs Parkway Indio, CA, 92203	(760) 342-2593	(760) 347-7880	jstapp@cabazonindians-nsn.gov
52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com
52701 CA Highway 371 Anza, CA, 92539	(951) 972-2568	(951) 763-2808	chairman@cahuilla-nsn.gov
52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov
P.O. Box 189 Warner Springs, CA, 92086-0189	(760) 782-0711	(760) 782-0712	
12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov

Column4	Column5	Column6	Column7
12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov
PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3537		awallick@palatribe.com
PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3515	(760) 742-3189	sgaughen@palatribe.com
P.O. Box 1477 Temecula, CA, 92593	(951) 770-6306	(951) 506-9491	pmacarro@pechanga-nsn.gov
P.O. Box 1477 Temecula, CA, 92593	(951) 770-6000	(951) 695-1778	epreston@pechanga-nsn.gov
P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com
P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com
P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com
P.O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	admin@ramona-nsn.gov
P. O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	jgomez@ramona-nsn.gov
One Government Center Lane Valley Center, CA, 92082	(760) 689-5727		dwalsh@rincon-nsn.gov

Column4	Column5	Column6	Column7
One Government Center Lane Valley Center, CA, 92082	(760) 803-3548		jlinton@rincon-nsn.gov
One Government Center Lane Valley Center, CA, 92082	(760) 484-4835		lgonzalez@rincon-nsn.gov
One Government Center Lane Valley Center, CA, 92082	(760) 648-3000		cmadrigal@rincon-nsn.gov
P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	lsaul@santarosa-nsn.gov
P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov
P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov
P.O. Box 1160	(760) 397-0300	(760) 397-8146	Cultural-

Column8	Column9	Column10	Column11

Cultural Affiliation	Counties	Last Updated
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	

Column8	Column9	Column10	Column11
Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego		
Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego		3/23/2023
Cupeno Luiseno	Orange,Riverside,San Bernardino,San Diego		3/23/2023
Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura		
Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura		
Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego		5/16/2023
Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego		5/16/2023
Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego		5/16/2023
Cahuilla	Imperial,Riverside,San Bernardino,San Diego		
Cahuilla	Imperial,Riverside,San Bernardino,San Diego		8/16/2016
Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura		7/7/2023

Column8	Column9	Column10	Column11
Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura		5/31/2023
Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura		5/31/2023
Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura		5/31/2023
Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego		
Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego		7/14/2023
Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego		7/14/2023
Cahuilla	Imperial,Riverside,San Bernardino,San Diego		

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-041-2023-010

August 03, 2023

[VIA EMAIL TO:4jakeller@gmail.com]
Jean A. Keller Cultural Resources
Jean A. Keller, Ph.D.
1042 N. El Camino Real, Suite B-244
Encinitas, CA 92024

Re: Perris Gateway Project (APN 914-170-020; 314-180-023,024)

Dear Jean A. Keller, Ph.D.,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Perris Gateway project. We have reviewed the documents and have the following comments:

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*A copy of the records search with associated survey reports and site records from the information center.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 699-1143. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Jeremy Cummings
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

Rincon Band of Luiseño Indians
CULTURAL RESOURCES DEPARTMENT

One Government Center Lane | Valley Center | CA 92082
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July 28, 2023

Sent via email: 4jakeller@gmail.com

Re: Perris Gateway Project, City of Perris, Riverside County, California

Dear Ms. Keller,

This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Tribe"), a federally recognized Indian tribe and sovereign government. We have received your notification regarding the above referenced project, and we thank you for the opportunity to consult on the project. The identified location is within the Traditional Use Area of the Luiseño people and within the Tribe's specific Area of Historic Interest (AHI). As such, the Rincon Band is traditionally and culturally affiliated to the project area.

After reviewing the provided documents and our internal information, no cultural resource information is available to share at this time. The Tribe therefore has no comments and we do not request consultation. We recommend that you contact local tribes as they are closer to the project and may have pertinent information. Please forward a final copy of the cultural resources study upon completion to the Rincon Band.

If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 749 1092 ext. 320 or via electronic mail at slinton@rincon-nsn.gov. Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Shuuluk Linton
Tribal Historic Preservation Office Coordinator
Cultural Resources Department

Bo Mazzetti, Chairman | Tishmall Turner, Vice Chair | Laurie E. Gonzalez, Council Member | John Constantino, Council Member | Joseph Linton, Council Member

Perris Gateway
(DPR22-00028; CUP 22-05259; TPM 38567)
ENERGY ANALYSIS
CITY OF PERRIS

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OCTOBER 12, 2023

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LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AGSP	Airport Gateway Specific Plan
AQIA	*Perris Gateway Air Quality Impact Analysis*
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Perris
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHDT	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy Duty Trucks
MARB/IPA	March Air Reserve Base/Inland Port Airport
MDV	Medium Duty Trucks
MHDT	Medium-Heavy Duty Trucks

MMcfd	Million Cubic Feet Per Day
mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	Perris Gateway
PV	Photovoltaic
PVCCSP	Perris Valley Commerce Center Specific Plan
PVCCSP EIR	*Perris Valley Commerce Center Specific Plan Environmental Impact Report SCH No. 2009081086*
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21st Century
TRUs	Transportation Refrigeration Units
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Perris Gateway Energy Analysis* is summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (*State CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	*Less Than Significant*	*n/a*
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	*Less Than Significant*	*n/a*

ES.2 REGULATORY REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in section 5 of this report.

ES.2 PERRIS VALLEY COMMERCE CENTER SPECIFIC PLAN (PVCCSP) ENVIRONMENTAL IMPACT REPORT (PVCCSP EIR) MITIGATION MEASURES

The Project site is located within the PVCC SP area planning. As such, the Project is required to comply with the applicable *Perris Valley Commerce Center Specific Plan Environmental Impact Report SCH No. 2009081086* mitigation measures (MMs) (2).

The applicable PVCC SP EIR mitigation measures for air quality are shown below and are required for the Project, these select measures would also assist in the reduction of energy usage. As a conservative measure, to provide a worst-case disclosure of the Project's impacts, no credit has been assumed from the following measures, yet, per above, the project will be required to comply with them.

MM AIR 19

In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project sites. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM AIR 20

Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent (%) beyond Title 24 and reduce indoor water use by 25%. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Perris Gateway Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Perris (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

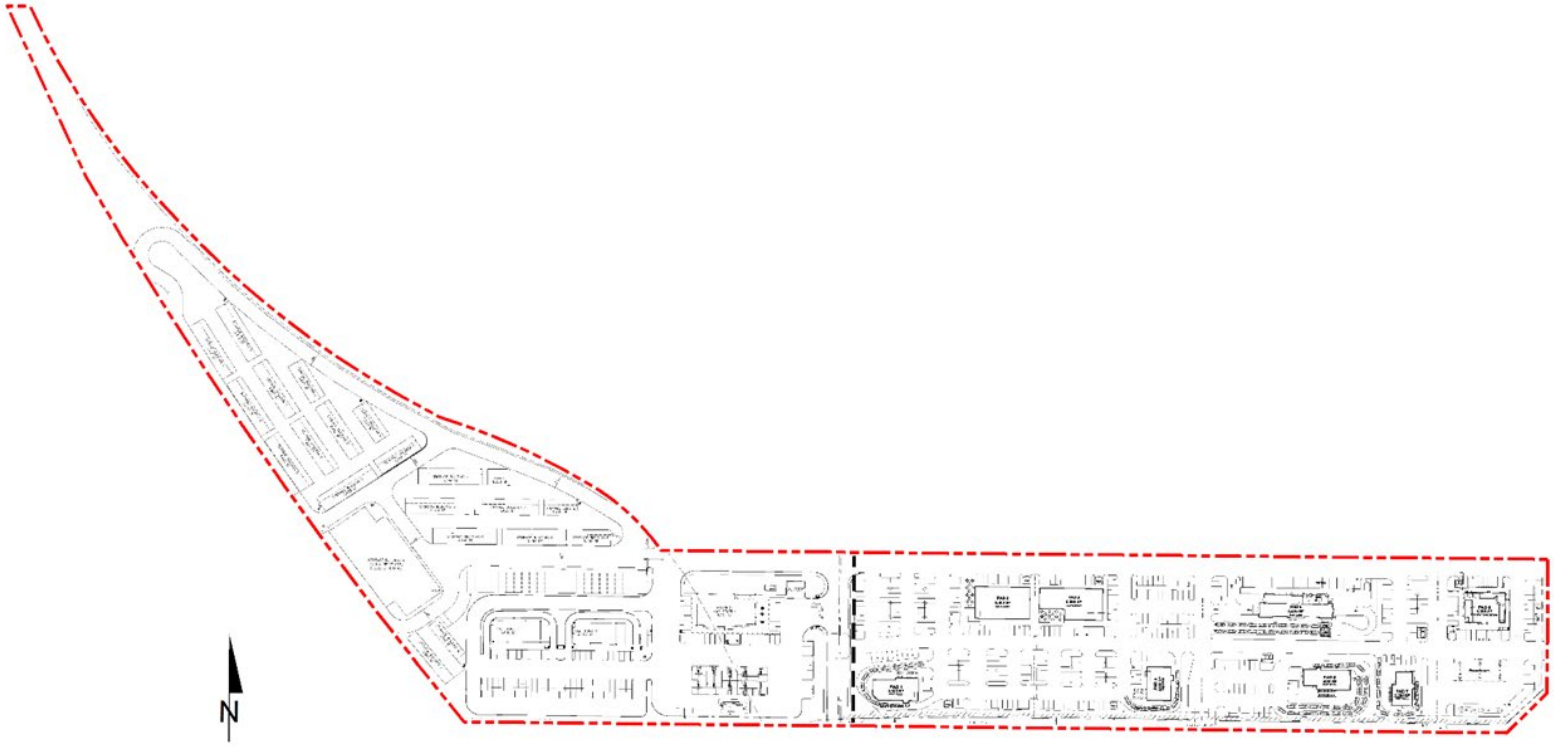
The proposed Perris Gateway site is located on the northbound side of the 215 Freeway and Ramona Expressway within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCCSP) planning area as shown on Exhibit 1-A. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located less than one mile north of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. A preliminary site plan is shown on Exhibit 1-B. The Project is anticipated to be constructed in one phase by the year 2026.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: SITE PLAN



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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2021, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and included (3):

- As of 2021, approximately 7,359 trillion British Thermal Unit (BTU) of energy was consumed
- As of 2021, approximately 605 million barrels of petroleum
- As of 2021, approximately 2,101 billion cubic feet of natural gas
- As of 2021, approximately 1 million short tons of coal

According to the EIA, in 2022 the U.S. petroleum consumption comprised about 90% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (4). In 2022, about 251,923 million gallons (or about 5.99 million barrels) of finished petroleum products were consumed in the U.S., an average of about 690 million gallons per day (or about 16.4 million barrels per day) (5). In 2021, California consumed approximately 12,157 million gallons in motor gasoline (33.31 million per day) and approximately 3,541 million gallons of diesel fuel (9.7 million per day) (6).

The most recent data provided by the EIA for energy use in California is reported from 2021 and provided by demand sectors as follows:

- Approximately 37.8% transportation sector
- Approximately 23.2% industrial sector
- Approximately 20.0% residential sector
- Approximately 19.0% commercial sector (7)

According to the EIA, California used approximately 247,250 gigawatt hours of electricity in 2021 (8). By sector in 2021, residential uses utilized 36.5% of the state's electricity, followed by 43.9% for commercial uses, 19.2% for industrial uses, and 0.3% for transportation. Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building (8).

According to the EIA, California used approximately 200,871 million therms of natural gas in 2021 (9). In 2021 (the most recent year for which data is available), by sector, industrial uses utilized 33% of the state's natural gas, followed by 30% used as fuel in the electric power sector, 21% from residential, 11% from commercial, 1% from transportation uses and the remaining 3% was utilized for the operations, processing and production of natural gas itself (9). While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90% of its supply of natural gas (9).

In 2022, total system electric generation for California was 287,220 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 203,257 GWh which accounted for approximately 71% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (17%) (10). Natural gas is the main source for electricity generation at 47.46% of the total in-state electric generation system power as shown in Table 2-1.

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (11):

- In 2022, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2022, the state ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states.
- In 2020, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all but three other states.
- In 2022, renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49% of California's in-state electricity generation. Natural gas fueled another 42%. Nuclear power supplied almost all the rest.
- In 2022, California was the fourth-largest electricity producer in the nation. The state was also the nation's third-largest electricity consumer, and additional needed electricity supplies came from out-of-state generators.

As indicated below, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2022)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	273	0.13%	181	5,716	5,897	6,170	2.15%
Natural Gas	96,457	47.46%	44	7,994	8,038	104,495	36.38%
Oil	65	0.03%	-	-	-	65	0.2%
Other (Waste Heat/Petroleum Coke)	315	0.15%	-	-	-	315	0.11%
Unspecified	-	0.0%	12,485	7,943	20,428	20,428	7.11%
Total Thermal and Unspecified	**97,110**	**47.78%**	**12,710**	**21,653**	**34,363**	**121,473**	**45.77%**
Nuclear	17,627	8.67%	397	8,342	8,739	26,366	9.18%
Large Hydro	14,607	7.19%	10,803	1,118	11,921	26,528	9.24%
Biomass	5,366	2.64%	771	25	797	6,162	2.15%
Geothermal	11,110	5.47%	253	2,048	2,301	13,412	4.67%
Small Hydro	3,005	1.48%	211	13	225	3,230	1.12%
Solar	40,494	19.92%	231	8,225	8,456	48,950	17.04%
Wind	13,938	6.86%	8,804	8,357	17,161	31,099	10.83%
Total Non-GHG and Renewables	**106,147**	**52.22%**	**21,471**	**28,129**	**49,599**	**155,747**	**54.23%**
SYSTEM TOTALS	***203,257***	***100.0%***	***34,180***	***49,782***	***83,962***	***287,220***	***100.0%***

Source: CECs 2022 Total System Electric Generation

2.2 ELECTRICITY

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.12. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South California Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts. Similarly, the subsequent 2022 IEPR's provides information and policy recommendations on advancing a clean, reliable, and affordable energy system (12).

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (13).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Electricity is currently provided to the Project site by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2021 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (14).

Table 2-2 presents SCE's specific proportional shares of electricity sources in 2021. As indicated in Table 2-2, the 2021 SCE Power Mix has renewable energy at 31.4% of the overall energy resources. Geothermal resources are at 5.7%, wind power is at 10.2%, large hydroelectric sources are at 2.3%, solar energy is at 14.9%, and coal is at 0% (15).

TABLE 2-2: SCE 2021 POWER CONTENT MIX

Energy Resources	2021 SCE Power Mix
Eligible Renewable	**31.4%**
Biomass & Waste	0.1%
Geothermal	5.7%
Eligible Hydroelectric	0.5%
Solar	14.9%
Wind	10.2%
Coal	**0.0%**
Large Hydroelectric	**2.3%**
Natural Gas	**22.3%**
Nuclear	**9.2%**
Other	**0.2%**
Unspecified Sources of power*	34.6%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas*

customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild

Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements.

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the

backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California." (16)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (7), and those vehicles consume an estimated 17.2 billion gallons of fuel each year[1]. Gasoline (and other vehicle fuels) are

[1] Fuel consumptions estimated utilizing information from EMFAC2021.

commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (7). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 8% of the nation's total consumption. The State is the largest U.S. consumer of motor gasoline and jet fuel, and 83% of the petroleum consumed in California is used in the transportation sector (17).

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2021, about 33% of the natural gas delivered to consumers went to the State's industrial sector, and about 31% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the State's utility-scale electricity generation in 2021. The residential sector, where three-fifths of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (17).

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2022 IEPR was adopted February, 2023, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2022 IEPR introduces a new

framework for embedding equity and environmental justice at the CEC and the California Energy Planning Library which allows for easier access to energy data and analytics for a wide range of users. Additionally, energy reliability, western electricity integration, gasoline cost factors and price spikes, the role of hydrogen in California's clean energy future, fossil gas transition and distributed energy resources are topics discussed within the 2022 IEPR (18).

3.2.2 STATE OF CALIFORNIA ENERGY PLAN

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (19). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (20):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).

- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).

- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

3.2.5 CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 44% of total retail sales by 2024 (21).

3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

Appendix F of the *State CEQA Guidelines* (1), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy sources.

In compliance with Appendix G of the *State CEQA Guidelines* (1), this report analyzes the project's anticipated energy use during construction and operations to determine if the Project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

4.2 METHODOLOGY

Information from the CalEEMod version 2022.1.1.12 outputs for the *Perris Gateway Air Quality Impact Analysis* (AQIA) (22) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALEEMOD

In May 2023, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2022.1.1.12. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (23). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendices 4.1 through Appendices 4.2.

4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (24). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of analysis, the 2025 and 2026 analysis years were utilized to determine the average vehicle fuel

economy used throughout the duration of the Project. Output from the EMFAC2021 model run is provided in Appendix 4.4.

4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

4.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to last approximately 19 months, commencing in October 2024 and being completed in May 2026 (22). The construction schedule utilized in the analysis, shown in Table 4-1, represents a "worst-case" analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per the *State CEQA Guidelines* (1).

TABLE 4-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Days
Site Preparation	10/1/2024	10/14/2024	10
Grading	10/15/2024	12/2/2024	35
Building Construction	12/3/2024	5/4/2026	370
Paving	10/28/2025	5/4/2026	135
Architectural Coating	10/28/2025	5/4/2026	135

PROJECT CONSTRUCTION POWER COST

The *2023 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of $2.50, which was used to calculate the Project's total construction power cost (25).

As shown on Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $41,879.42.

TABLE 4-2: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Unrefrigerated Warehouse-No Rail	$2.50	80.48	19	$3,822.71
High Turnover (Sit Down Restaurant)	$2.50	12.00	19	$570.00
Fast Food Restaurant with Drive Thru	$2.50	18.40	19	$874.00
Convenience Market with Gas Pumps (12 VFP)	$2.50	4.09	19	$194.18
Convenience Market with Gas Pumps (20 VFP)	$2.50	5.95	19	$282.67
Automobile Care Center	$2.50	5.425	19	$257.69
Other Asphalt Surfaces	$2.50	755.330	19	$35,878.18
			CONSTRUCTION POWER COST	***$41,879.42***

4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4-2) by the utility provider cost per kilowatt hour (kWh) of electricity.

PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule was used to determine the Project's electrical usage. As of January 1, 2023, SCE's general service rate is $0.13 per kilowatt hours (kWh) of electricity for commercial services (26). As shown on Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 317,943 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Unrefrigerated Warehouse-No Rail	$0.13	29,021
High Turnover (Sit Down Restaurant)	$0.13	4,327
Fast Food Restaurant with Drive Thru	$0.13	6,635
Convenience Market with Gas Pumps (12 VFP)	$0.13	1,474
Convenience Market with Gas Pumps (20 VFP)	$0.13	2,146
Automobile Care Center	$0.13	1,956
Other Asphalt Surfaces	$0.13	272,382
	CONSTRUCTION ELECTRICITY USAGE	***317,943***

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. It should be noted that most pieces of equipment would likely operate for fewer hours per day. Furthermore, PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards. A summary of construction equipment assumptions by phase is provided at Table 4-4.

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment[1]	Amount	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (27). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards.

Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region[2]. As presented in Table 4-5, Project construction activities would consume an estimated 68,219 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

[2] Based on Appendix A of the CalEEMod User's Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Site Preparation	10	Rubber Tired Dozers	367	3	8	0.4	3,523	1,904
		Crawler Tractors	84	4	8	0.37	995	538
Grading	35	Excavators	36	2	8	0.38	219	414
		Graders	148	1	8	0.41	485	918
		Rubber Tired Dozers	367	1	8	0.4	1,174	2,222
		Scrapers	423	2	8	0.48	3,249	6,146
		Crawler Tractors	84	2	8	0.37	497	941
Building Construction	370	Cranes	367	1	8	0.29	851	17,029
		Forklifts	82	3	8	0.2	394	7,872
		Generator Sets	14	1	8	0.74	83	1,658
		Tractors/Loaders/Backhoes	84	3	8	0.37	746	14,918
		Welders	46	1	8	0.45	166	3,312
Paving	135	Pavers	81	2	8	0.42	544	3,972
		Paving Equipment	89	2	8	0.36	513	3,741
		Rollers	36	2	8	0.38	219	1,597
Architectural Coating	135	Air Compressors	37	1	8	0.48	142	1,037
CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								***68,219***

4.3.3 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, hauling, and vendors commuting to and from the site. The number of workers and vendor trips are presented below in Table 4-6. It should be noted that for Vendor Trips, specifically, CalEEMod only assigns Vendor Trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for Vendor Trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 4-6: CONSTRUCTION TRIPS AND VMT

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day
Site Preparation	18	1
Grading	20	2
Building Construction	52	19
Architectural Coating	15	0
Paving	10	0

4.3.4 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips (personal vehicles used by workers commuting to the Project from home) would generate an estimated 439,838 VMT during the 19 months of construction (22). Based on CalEEMod methodology, it is assumed that 50% of all construction worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1[3]), and 25% are from light-duty-trucks (LDT2[4]). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (24). EMFAC2021 was run for the LDA, LDT1, and LDT2 vehicle class within the California sub-area for the 2024 through 2026 calendar years. Data from EMFAC2021 is shown in Appendix 4.4.

Table 4-7 provides an estimated annual fuel consumption resulting from Project construction worker trips. Based on Table 4-7, it is estimated that 15,409 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

[3] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[4] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES (1 OF 2)

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2024	LDA						
	Site Preparation	10	9	18.5	1,665	31.51	53
	Grading	35	10	18.5	6,475	31.51	206
	Building Construction	21	26	18.5	10,101	31.51	321
	LDT1						
	Site Preparation	10	5	18.5	925	24.62	38
	Grading	35	5	18.5	3,238	24.62	131
	Building Construction	21	13	18.5	5,051	24.62	205
	LDT2						
	Site Preparation	10	5	18.5	925	24.57	38
	Grading	35	5	18.5	3,238	24.57	132
	Building Construction	21	13	18.5	5,051	24.57	206
2025	LDA						
	Building Construction	261	26	18.5	125,541	32.49	3,864
	Paving	47	8	18.5	6,956	33.43	208
	Architectural Coating	47	5	18.5	4,348	33.43	130
	LDT1						
	Building Construction	261	13	18.5	62,771	25.14	2,497
	Paving	47	4	18.5	3,478	25.14	138
	Architectural Coating	47	3	18.5	2,609	25.14	104
	LDT2						
	Building Construction	261	13	18.5	62,771	25.29	2,482
	Paving	47	4	18.5	3,478	25.29	138
	Architectural Coating	47	3	18.5	2,609	25.29	103
2026	LDA						
	Building Construction	88	26	18.5	42,328	33.43	1,266
	Paving	88	8	18.5	13,024	33.43	390
	Architectural Coating	88	5	18.5	8,140	33.43	243

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES (2 OF 2)

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2026	LDT1						
	Building Construction	88	13	18.5	21,164	25.70	823
	Paving	88	4	18.5	6,512	25.70	253
	Architectural Coating	88	3	18.5	4,884	25.70	190
	LDT2						
	Building Construction	88	13	18.5	21,164	26.01	814
	Paving	88	4	18.5	6,512	26.01	250
	Architectural Coating	88	3	18.5	4,884	26.01	188
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION							***15,409***

4.3.5 CONSTRUCTION VENDOR FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 76,398 VMT along area roadways for the Project over the duration of construction activity (22). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT) and 50% are from heavy-heavy duty trucks (HHDT). These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (22). Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHDT and HHDT vehicle classes within the California sub-area for the 2024 through 2026 calendar years. Data from EMFAC2021 is shown in Appendix 4.4.

Based on Table 4-8, it is estimated that 10,556 gallons of fuel will be consumed related to construction vendor trips during full construction of the Project.

TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (1 OF 2)

Year	Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2024	MHDT						
	Site Preparation	10	1	10.2	102	8.49	12
	Grading	35	1	10.2	357	8.49	42
	Building Construction	21	10	10.2	2,142	8.49	252
	HHDT						
	Site Preparation	10	1	10.2	102	6.12	17
	Grading	35	1	10.2	357	6.12	58

TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (2 OF 2)

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
	Building Construction	21	10	10.2	2,142	6.12	350
2025	MHDT						
	Building Construction	261	10	10.2	26,622	8.60	3,095
	HHDT						
	Building Construction	261	10	10.2	26,622	6.22	4,282
2026	MHDT						
	Building Construction	88	10	10.2	8,976	8.72	1,029
	HHDT						
	Building Construction	88	10	10.2	8,976	6.33	1,419
TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION							***10,556***

It should be noted that Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

4.3.6 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor

Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by passenger car and truck vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (24). EMFAC2021 was run for the Riverside County area for the 2026 calendar year. Data from EMFAC2021 is shown in Appendix 4.4.

As summarized on Table 4-9 the Project will result in 66,614,977 annual VMT and an estimated annual fuel consumption of 2,690,417 gallons of fuel.

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (1 OF 2)

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	33.43	33,051,683	988,568
LDT1	25.70	2,530,170	98,442

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (2 OF 2)

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDT2	26.01	13,650,713	524,854
MDV	20.88	10,544,209	504,999
LHDT1	16.89	2,094,433	123,976
LHDT2	16.01	597,108	37,302
MHDT	8.72	976,371	111,905
HHDT	6.33	1,074,258	169,817
OBUS	6.71	40,116	5,976
UBUS	4.56	25,759	5,655
MCY	42.07	1,540,077	36,607
SBUS	6.43	89,100	13,848
MH	5.86	400,983	68,470
	TOTAL (ALL VEHICLES)	***66,614,977***	***2,690,417***

mpg= miles per gallon; LDA= light-duty auto; LDT1= light-duty truck; LDT2= light-duty truck; MDV= medium-duty truck; LHDT1= light-heavy-duty truck; LHDT2= light-heavy-duty truck; MHDT= medium-heavy-duty truck; HHDT= heavy-heavy-duty truck; OBUS= other bus; UBUS= urban bus; MCY= motorcycle; SBUS= school bus; MH= motor home; TRU= transport refrigeration unit

4.4.2 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of natural gas and electricity, which would be supplied to the Project by SoCalGas and SCE, respectively. Annual natural gas and electricity demands of the Project are summarized in Table 4-10.

TABLE 4-10: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Unrefrigerated Warehouse-No Rail	1,536,501	370,388
High Turnover (Sit Down Restaurant)	1,368,706	421,379
Fast Food Restaurant with Drive Thru	2,098,682	646,114
Convenience Market with Gas Pumps (12 VFP)	68,616	131,142
Convenience Market with Gas Pumps (20 VFP)	99,886	190,906
Automobile Care Center	233,006	51,912
TOTAL PROJECT ENERGY DEMAND	***5,405,396***	***1,811,842***

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and

vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code).

ENHANCED VEHICLE FUEL EFFICIENCIES

Project annual fuel consumption estimates presented previously in Table 4-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

4.5 SUMMARY

4.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $41,879.42. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 317,943 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 68,219 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 15,409 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDTs and HHDTs) will total approximately 10,556 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2022 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (28). As

supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 Operational Energy Demands

Transportation Energy Demands

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 2,690,417 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other retail and commercial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other commercial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions and energy demand from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25% by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (29).

- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative means of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 5,405,396 kBTU/year of natural gas; and 1,811,842 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SCE. The Project includes conventional retail uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not include uses that are inherently energy intensive and the energy demands in total would be comparable to other retails of similar scale and configuration.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact Analysis

A significant impact would occur if the proposed Project would result in the inefficient, wasteful, or unnecessary use of energy.

Construction

Based on CalEEMod estimations within the modeling output files used to estimate GHG emissions associated with future development projects, construction-related vehicle trips would result in approximately 516,236 VMT and consume an estimated 25,965 gallons of gasoline and diesel combined during future development projects construction phases. Additionally, on-site construction equipment would consume an estimated 68,219 gallons of diesel fuel. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel- powered equipment and are enforced by the ARB. Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Therefore, the construction-related impacts related to electricity and fuel consumption would be less than significant.

Operation

Electricity and Natural Gas

Operation of the proposed project would consume energy as part of building operations and transportation activities. Building operations would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. Based on CalEEMod energy use estimations, operations for the Project would result in approximately 1,811,842 kWh of electricity and 5,405,396 kBTU/year of natural gas annually.

Future development projects would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of

lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Fuel

Operational energy would also be consumed during vehicle trips associated with future development projects envisioned under the proposed project. Fuel consumption would be primarily related to vehicle use by residents, visitors, and employees associated with future development projects. Based on CalEEMod energy use estimations, project-related vehicle trips would result in approximately 66.6 million VMT and consume an estimated 2,690,417 gallons of gasoline and diesel combined, annually (see Appendix 4.4).

The Project is located on an infill site that is surrounded by existing urban uses, the existing transportation facilities and infrastructure would provide future residents, visitors, and employees associated with the Project access to a mix of land uses in close proximity to the Project, thus further reducing fuel consumption demand. Additionally, the Project will also be providing parking and EV infrastructure that would further promote fuel efficient vehicles. For these reasons, operational-related transportation fuel consumption would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the operational impact related to vehicle fuel consumption would be less than significant.

5.2 ENERGY IMPACT 2

Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Analysis

A significant impact would occur if the proposed Project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Construction

As discussed in Section 5.1, above, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on- road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would comply with these regulations. There are no policies at the local level applicable to energy conservation specific to the construction phase. Thus, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, construction-related energy efficiency and renewable energy standards consistency impacts would be less than significant.

Operation

California's Renewable Portfolio Standard (RPS) establishes a goal of renewable energy for local providers to be 44 percent by 2040. Similarly, the State is promoting renewable energy targets to meet the 2022 Scoping Plan greenhouse gas emissions reductions. As discussed in Section 5.1, above, the Project would result in approximately 1,811,842 kWh of electricity and 5,405,396 kBTU/year of natural gas annually.

Future development projects would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Compliance with the aforementioned mandatory measures would ensure that future development projects would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, operational energy efficiency and renewable energy standards consistency impacts would be less than significant.

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Perris Gateway. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

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University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
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APPENDIX 4.1:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Construction) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Construction)
Construction Start Date	10/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	3.71	19.0	33.3	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,950	5,950	0.23	0.16	5.15	6,008
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	3.71	19.6	36.6	0.06	0.23	5.90	6.00	0.22	2.74	2.84	—	6,924	6,924	0.28	0.16	0.15	6,952
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.49	0.90	8.56	15.3	0.02	0.09	0.64	0.72	0.08	0.19	0.24	—	3,034	3,034	0.12	0.10	1.40	3,068
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.16	1.56	2.80	< 0.005	0.02	0.12	0.13	0.02	0.03	0.04	—	502	502	0.02	0.02	0.23	508

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.65	0.59	10.3	19.8	0.03	0.10	0.84	0.94	0.10	0.20	0.30	—	3,938	3,938	0.15	0.14	4.32	3,986
2026	0.99	3.71	19.0	33.3	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,950	5,950	0.23	0.16	5.15	6,008
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.91	0.90	19.6	36.6	0.06	0.18	5.90	6.00	0.18	2.74	2.84	—	6,924	6,924	0.28	0.14	0.12	6,952
2025	0.99	3.71	19.2	32.2	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,897	5,897	0.23	0.16	0.15	5,951
2026	0.97	3.69	19.1	31.9	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,865	5,865	0.20	0.16	0.13	5,918
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.14	0.14	2.88	5.42	0.01	0.03	0.49	0.52	0.03	0.19	0.21	—	1,038	1,038	0.04	0.02	0.18	1,044
2025	0.49	0.81	8.56	15.3	0.02	0.09	0.64	0.72	0.08	0.15	0.24	—	3,034	3,034	0.12	0.10	1.40	3,068
2026	0.24	0.90	4.64	7.80	0.01	0.05	0.28	0.34	0.05	0.07	0.12	—	1,426	1,426	0.05	0.04	0.54	1,440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.03	0.03	0.53	0.99	< 0.005	< 0.005	0.09	0.09	< 0.005	0.03	0.04	—	172	172	0.01	< 0.005	0.03	173
2025	0.09	0.15	1.56	2.80	< 0.005	0.02	0.12	0.13	0.02	0.03	0.04	—	502	502	0.02	0.02	0.23	508
2026	0.04	0.16	0.85	1.42	< 0.005	0.01	0.05	0.06	0.01	0.01	0.02	—	236	236	0.01	0.01	0.09	238

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,293	5,293	0.21	0.04	—	5,311
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.10	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	231	231	0.01	0.01	0.03	234
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.1	31.1	< 0.005	< 0.005	< 0.005	32.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.42	6.42	< 0.005	< 0.005	0.01	6.51
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.89
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.06	1.06	< 0.005	< 0.005	< 0.005	1.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.80	19.4	35.3	0.06	0.18	—	0.18	0.18	—	0.18	—	6,597	6,597	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	1.86	3.39	0.01	0.02	—	0.02	0.02	—	0.02	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.34	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.26	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	265	265	0.01	0.01	0.03	268
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.1	62.1	< 0.005	0.01	< 0.005	65.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.7	25.7	< 0.005	< 0.005	0.05	26.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.96	5.96	< 0.005	< 0.005	0.01	6.23
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.25	4.25	< 0.005	< 0.005	0.01	4.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.54	0.89	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	149	149	0.01	< 0.005	—	150
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.25	0.29	3.25	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	681	681	0.03	0.03	0.08	690
Vendor	0.03	0.02	0.70	0.21	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.01	0.09	0.04	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.2	39.2	< 0.005	< 0.005	0.07	39.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.5	33.5	< 0.005	0.01	0.04	35.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.48	6.48	< 0.005	< 0.005	0.01	6.58
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.54	5.54	< 0.005	< 0.005	0.01	5.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.25	6.77	11.2	0.02	0.07	—	0.07	0.06	—	0.06	—	1,879	1,879	0.08	0.02	—	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.24	2.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	311	311	0.01	< 0.005	—	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.23	0.23	3.98	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	726	726	0.03	0.03	2.67	737
Vendor	0.03	0.01	0.64	0.20	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	581	581	0.01	0.09	1.65	610
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.25	3.01	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	667	667	0.03	0.03	0.07	676
Vendor	0.03	0.01	0.67	0.20	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	582	582	0.01	0.09	0.04	608
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.27	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	483	483	0.02	0.02	0.82	490
Vendor	0.02	0.01	0.48	0.14	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	415	415	0.01	0.06	0.51	435
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.04	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	79.9	79.9	< 0.005	< 0.005	0.14	81.1
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.8	68.8	< 0.005	0.01	0.08	72.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	2.30	3.80	0.01	0.02	—	0.02	0.02	—	0.02	—	638	638	0.03	0.01	—	640
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.42	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	106	106	< 0.005	< 0.005	—	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.20	3.70	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	710	710	0.03	0.02	2.41	721
Vendor	0.03	0.01	0.61	0.19	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	572	572	0.01	0.09	1.56	600
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.21	0.23	2.81	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	653	653	0.01	0.03	0.06	661

Vendor	0.03	0.01	0.64	0.19	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	572	572	0.01	0.09	0.04	599
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.71	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.25	163
Vendor	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	< 0.005	0.02	0.16	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.6	26.6	< 0.005	< 0.005	0.04	26.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.0	23.0	< 0.005	< 0.005	0.03	24.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.03	0.92	1.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	192	192	0.01	< 0.005	—	193
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.0	25.0	< 0.005	< 0.005	0.04	25.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.14	4.14	< 0.005	< 0.005	0.01	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.75	2.57	< 0.005	0.02	—	0.02	0.02	—	0.02	—	367	367	0.01	< 0.005	—	368
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.32	0.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	60.7	60.7	< 0.005	< 0.005	—	60.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.7	46.7	< 0.005	< 0.005	0.07	47.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.74	7.74	< 0.005	< 0.005	0.01	7.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.18	0.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Architectural Coatings	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.76
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.60	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	0.01	0.01	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.03	17.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.85	2.85	< 0.005	< 0.005	< 0.005	2.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.35	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.2	43.2	< 0.005	< 0.005	—	43.3
Architectural Coatings	—	0.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.48	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.56	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.01	132
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.1	32.1	< 0.005	< 0.005	0.05	32.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.32	5.32	< 0.005	< 0.005	0.01	5.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	10/1/2024	10/14/2024	5.00	10.0	10
Grading	Grading	10/15/2024	12/2/2024	5.00	35.0	35
Building Construction	Building Construction	12/3/2024	5/4/2026	5.00	370	370
Paving	Paving	10/28/2025	5/4/2026	5.00	135	20
Architectural Coating	Architectural Coating	10/28/2025	5/4/2026	5.00	135	20

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45

Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	51.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	19.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	189,513	63,171	45,660

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	35.0	0.00	—
Grading	—	—	140	0.00	—
Paving	0.00	0.00	0.00	0.00	17.3

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
High Turnover (Sit Down Restaurant)	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Automobile Care Center	0.00	0%
Other Asphalt Surfaces	17.3	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6

Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074
Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827

Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5

Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0

Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces

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APPENDIX 4.2:

CALEEMOD PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Operations) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Operations)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	80.7	76.4	74.3	688	1.74	1.38	151	152	1.30	38.3	39.6	311	180,586	180,898	38.2	7.78	756	184,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	75.1	70.8	79.5	569	1.63	1.37	151	152	1.30	38.3	39.6	311	169,805	170,116	38.4	8.03	156	173,626
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	64.6	61.3	69.6	509	1.41	1.20	129	130	1.13	32.6	33.8	311	147,302	147,614	37.4	6.97	367	150,994
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.8	11.2	12.7	92.9	0.26	0.22	23.5	23.7	0.21	5.96	6.16	51.5	24,388	24,439	6.20	1.15	60.8	24,999

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	79.6	72.6	72.8	681	1.73	1.26	151	152	1.19	38.3	39.5	—	176,908	176,908	6.57	7.61	616	179,956
Area	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	80.7	76.4	74.3	688	1.74	1.38	151	152	1.30	38.3	39.6	311	180,586	180,898	38.2	7.78	756	184,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	74.9	67.9	78.1	568	1.62	1.26	151	152	1.19	38.3	39.5	—	166,149	166,149	6.80	7.86	16.0	168,678
Area	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	75.1	70.8	79.5	569	1.63	1.37	151	152	1.30	38.3	39.6	311	169,805	170,116	38.4	8.03	156	173,626

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.8	57.7	68.2	504	1.40	1.08	129	130	1.02	32.6	33.7	—	143,631	143,631	5.84	6.80	228	146,030
Area	0.67	3.47	0.03	3.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.5
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	64.6	61.3	69.6	509	1.41	1.20	129	130	1.13	32.6	33.8	311	147,302	147,614	37.4	6.97	367	150,994
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.6	10.5	12.4	92.0	0.26	0.20	23.5	23.7	0.19	5.96	6.14	—	23,780	23,780	0.97	1.13	37.7	24,177
Area	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Energy	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	571	571	0.05	< 0.005	—	574
Water	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3
Waste	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1
Total	11.8	11.2	12.7	92.9	0.26	0.22	23.5	23.7	0.21	5.96	6.16	51.5	24,388	24,439	6.20	1.15	60.8	24,999

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.66	0.60	0.60	5.65	0.01	0.01	1.25	1.26	0.01	0.32	0.33	—	1,467	1,467	0.05	0.06	5.11	1,493
High Turnover (Sit Down Restaurant)	5.58	5.09	5.10	47.7	0.12	0.09	10.6	10.7	0.08	2.69	2.77	—	12,400	12,400	0.46	0.53	43.2	12,614
Fast Food Restaurant with Drive Thru	37.0	33.8	33.9	317	0.81	0.59	70.3	70.9	0.55	17.8	18.4	—	82,345	82,345	3.06	3.54	287	83,764
Convenience Market with Gas Pumps	33.7	30.8	30.9	289	0.73	0.53	64.0	64.5	0.50	16.2	16.7	—	74,989	74,989	2.79	3.23	261	76,281
Automobile Care Center	2.57	2.34	2.35	22.0	0.06	0.04	4.87	4.91	0.04	1.24	1.27	—	5,706	5,706	0.21	0.25	19.9	5,805
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	79.6	72.6	72.8	681	1.73	1.26	151	152	1.19	38.3	39.5	—	176,908	176,908	6.57	7.61	616	179,956
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.62	0.56	0.65	4.71	0.01	0.01	1.25	1.26	0.01	0.32	0.33	—	1,378	1,378	0.06	0.07	0.13	1,399
High Turnover (Sit Down Restaurant)	5.25	4.76	5.47	39.8	0.11	0.09	10.6	10.7	0.08	2.69	2.77	—	11,646	11,646	0.48	0.55	1.12	11,823

Fast Food Restaurant with Drive Thru	34.9	31.6	36.3	264	0.76	0.59	70.3	70.9	0.55	17.8	18.4	—	77,337	77,337	3.16	3.66	7.43	78,514
Convenience Market with Gas Pumps	31.8	28.8	33.1	241	0.69	0.54	64.0	64.5	0.50	16.2	16.7	—	70,429	70,429	2.88	3.33	6.77	71,501
Automobile Care Center	2.42	2.19	2.52	18.3	0.05	0.04	4.87	4.91	0.04	1.24	1.27	—	5,359	5,359	0.22	0.25	0.52	5,441
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	74.9	67.9	78.1	568	1.62	1.26	151	152	1.19	38.3	39.5	—	166,149	166,149	6.80	7.86	16.0	168,678
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.09	0.10	0.76	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	—	197	197	0.01	0.01	0.31	201
High Turnover (Sit Down Restaurant)	0.76	0.69	0.82	6.04	0.02	0.01	1.54	1.55	0.01	0.39	0.40	—	1,560	1,560	0.06	0.07	2.47	1,587
Fast Food Restaurant with Drive Thru	5.02	4.55	5.37	39.7	0.11	0.09	10.1	10.2	0.08	2.57	2.65	—	10,267	10,267	0.42	0.49	16.3	10,438
Convenience Market with Gas Pumps	5.31	4.81	5.68	42.0	0.12	0.09	10.7	10.8	0.08	2.72	2.80	—	10,859	10,859	0.44	0.51	17.2	11,041

Automob Care Center	0.44	0.40	0.47	3.47	0.01	0.01	0.88	0.89	0.01	0.22	0.23	—	896	896	0.04	0.04	1.42	911
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	11.6	10.5	12.4	92.0	0.26	0.20	23.5	23.7	0.19	5.96	6.14	—	23,780	23,780	0.97	1.13	37.7	24,177

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.2	58.2	0.01	< 0.005	—	58.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	0.01	< 0.005	—	66.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.01	< 0.005	—	102
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	50.6	50.6	< 0.005	< 0.005	—	50.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	8.15	8.15	< 0.005	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.03	< 0.005	—	286

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440
Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.5	81.5	0.01	< 0.005	—	81.8
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	112
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97

Automob Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	287	287	0.03	< 0.005	—	288

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.98	0.90	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Total	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.12	0.11	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Total	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.90	19.9	25.8	0.61	0.01	—	45.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.16	3.89	5.05	0.12	< 0.005	—	8.87
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.77	5.97	7.74	0.18	< 0.005	—	13.6
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.11	0.36	0.46	0.01	< 0.005	—	0.82
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.12	3.79	4.91	0.12	< 0.005	—	8.63

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6

Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.75	0.00	6.75	0.67	0.00	—	23.6
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.23
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.18	0.00	—	6.47
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71	1.71
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.2	13.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.12	7.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	118	142	121	44,565	1,468	1,767	1,498	552,940
High Turnover (Sit Down Restaurant)	904	1,033	1,204	352,315	11,216	12,818	14,937	4,371,313
Fast Food Restaurant with Drive Thru	6,066	7,994	6,132	2,318,066	75,262	99,190	76,082	28,761,191
Convenience Market with Gas Pumps	2,083	2,363	2,612	802,460	25,844	29,313	32,412	9,956,447
Convenience Market with Gas Pumps	4,668	3,938	4,354	1,649,352	57,918	48,855	54,019	20,464,180
Automobile Care Center	554	554	554	202,210	6,874	6,874	6,874	2,508,907
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	189,513	63,171	45,660

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	370,388	346	0.0330	0.0040	1,536,501
High Turnover (Sit Down Restaurant)	421,379	346	0.0330	0.0040	1,368,706
Fast Food Restaurant with Drive Thru	646,114	346	0.0330	0.0040	2,098,682
Convenience Market with Gas Pumps	131,142	346	0.0330	0.0040	68,616
Convenience Market with Gas Pumps	190,906	346	0.0330	0.0040	99,886
Automobile Care Center	51,912	346	0.0330	0.0040	233,006
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	18,610,538	0.00
High Turnover (Sit Down Restaurant)	3,642,405	0.00
Fast Food Restaurant with Drive Thru	5,585,020	0.00

Convenience Market with Gas Pumps	125,486	0.00
Convenience Market with Gas Pumps	209,144	0.00
Automobile Care Center	3,543,540	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	75.6	—
High Turnover (Sit Down Restaurant)	143	—
Fast Food Restaurant with Drive Thru	212	—
Convenience Market with Gas Pumps	5.08	—
Convenience Market with Gas Pumps	8.47	—
Automobile Care Center	20.7	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00

Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Automobile Care Center	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0

Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074

Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8

Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Vehicle Data	Trip characteristics based on information from Traffic Analysis.
Operations: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Water and Waste Water	The project includes the construction and operation of a 5,425 square foot automated car wash. Water usage for the car wash has been estimated based on the Water Use, Evaporation and Carryout Conveyor Car Washes (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle. Per the Perris Gateway Traffic Analysis, the Automated Car wash use is anticipated to generate 554 daily trips per day. On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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APPENDIX 4.3:

CALEEMOD PROJECT OPERATIONAL LST EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Operational LSTs) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Operational LSTs)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	57.8	59.3	16.1	104	0.05	0.20	0.85	1.05	0.19	0.22	0.41	311	7,825	8,136	33.9	1.41	143	9,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	52.5	54.0	16.8	113	0.05	0.19	0.85	1.04	0.18	0.22	0.40	311	7,783	8,094	34.3	1.45	140	9,522
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	45.2	46.8	14.6	102	0.04	0.19	0.73	0.91	0.18	0.18	0.36	311	7,209	7,520	33.9	1.27	141	8,886
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.24	8.54	2.67	18.6	0.01	0.03	0.13	0.17	0.03	0.03	0.07	51.5	1,194	1,245	5.61	0.21	23.3	1,471

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.6	55.5	14.6	96.8	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,146	4,146	2.34	1.24	3.48	4,577
Area	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	57.8	59.3	16.1	104	0.05	0.20	0.85	1.05	0.19	0.22	0.41	311	7,825	8,136	33.9	1.41	143	9,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	52.4	51.1	15.4	112	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,127	4,127	2.65	1.28	0.09	4,574
Area	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	52.5	54.0	16.8	113	0.05	0.19	0.85	1.04	0.18	0.22	0.40	311	7,783	8,094	34.3	1.45	140	9,522

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.3	43.2	13.1	96.7	0.03	0.07	0.73	0.79	0.06	0.18	0.25	—	3,538	3,538	2.28	1.09	1.29	3,922
Area	0.67	3.47	0.03	3.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.5
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	45.2	46.8	14.6	102	0.04	0.19	0.73	0.91	0.18	0.18	0.36	311	7,209	7,520	33.9	1.27	141	8,886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.09	7.89	2.40	17.6	0.01	0.01	0.13	0.14	0.01	0.03	0.05	—	586	586	0.38	0.18	0.21	649
Area	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Energy	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	571	571	0.05	< 0.005	—	574
Water	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3
Waste	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1
Total	8.24	8.54	2.67	18.6	0.01	0.03	0.13	0.17	0.03	0.03	0.07	51.5	1,194	1,245	5.61	0.21	23.3	1,471

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.47	0.46	0.12	0.80	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	0.02	0.01	0.03	38.0
High Turnover (Sit Down Restaurant)	3.97	3.89	1.02	6.78	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	291	291	0.16	0.09	0.24	321
Fast Food Restaurant with Drive Thru	26.4	25.8	6.78	45.1	0.02	0.04	0.40	0.43	0.03	0.10	0.13	—	1,930	1,930	1.09	0.58	1.62	2,130
Convenience Market with Gas Pumps	24.0	23.5	6.17	41.0	0.02	0.03	0.36	0.39	0.03	0.09	0.12	—	1,758	1,758	0.99	0.52	1.47	1,940
Automobile Care Center	1.83	1.79	0.47	3.12	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	134	134	0.08	0.04	0.11	148
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	56.6	55.5	14.6	96.8	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,146	4,146	2.34	1.24	3.48	4,577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.43	0.42	0.13	0.93	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.2	34.2	0.02	0.01	< 0.005	37.9
High Turnover (Sit Down Restaurant)	3.67	3.58	1.08	7.85	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	289	289	0.19	0.09	0.01	321

Fast Food Restaurant with Drive Thru	24.4	23.8	7.16	52.1	0.02	0.04	0.40	0.43	0.03	0.10	0.14	—	1,921	1,921	1.23	0.59	0.04	2,129
Convenience Market with Gas Pumps	22.2	21.6	6.52	47.5	0.02	0.03	0.36	0.40	0.03	0.09	0.12	—	1,750	1,750	1.12	0.54	0.04	1,939
Automobile Care Center	1.69	1.65	0.50	3.61	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	133	133	0.09	0.04	< 0.005	148
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	52.4	51.1	15.4	112	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,127	4,127	2.65	1.28	0.09	4,574
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.07	0.02	0.15	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.86	4.86	< 0.005	< 0.005	< 0.005	5.39
High Turnover (Sit Down Restaurant)	0.53	0.52	0.16	1.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.4	38.4	0.02	0.01	0.01	42.6
Fast Food Restaurant with Drive Thru	3.49	3.41	1.04	7.62	< 0.005	0.01	0.06	0.06	< 0.005	0.01	0.02	—	253	253	0.16	0.08	0.09	280
Convenience Market with Gas Pumps	3.70	3.60	1.09	8.06	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	267	267	0.17	0.08	0.10	297

Automob Care Center	0.30	0.30	0.09	0.66	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	22.1	22.1	0.01	0.01	0.01	24.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.09	7.89	2.40	17.6	0.01	0.01	0.13	0.14	0.01	0.03	0.05	—	586	586	0.38	0.18	0.21	649

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.2	58.2	0.01	< 0.005	—	58.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	0.01	< 0.005	—	66.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.01	< 0.005	—	102
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	50.6	50.6	< 0.005	< 0.005	—	50.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	8.15	8.15	< 0.005	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.03	< 0.005	—	286

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440
Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.5	81.5	0.01	< 0.005	—	81.8
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	112
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97

Automob Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	287	287	0.03	< 0.005	—	288

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.98	0.90	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Total	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.12	0.11	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Total	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.90	19.9	25.8	0.61	0.01	—	45.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.16	3.89	5.05	0.12	< 0.005	—	8.87
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.77	5.97	7.74	0.18	< 0.005	—	13.6
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.11	0.36	0.46	0.01	< 0.005	—	0.82
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.12	3.79	4.91	0.12	< 0.005	—	8.63

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6

Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.75	0.00	6.75	0.67	0.00	—	23.6
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.23
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.18	0.00	—	6.47
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71	1.71
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.2	13.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.12	7.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	118	142	121	44,565	8.28	9.97	8.45	3,120
High Turnover (Sit Down Restaurant)	904	1,033	1,204	352,315	63.3	72.3	84.3	24,662
Fast Food Restaurant with Drive Thru	6,066	7,994	6,132	2,318,066	425	560	429	162,265
Convenience Market with Gas Pumps	2,083	2,363	2,612	802,460	146	165	183	56,172
Convenience Market with Gas Pumps	4,668	3,938	4,354	1,649,352	327	276	305	115,455
Automobile Care Center	554	554	554	202,210	38.8	38.8	38.8	14,155
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	189,513	63,171	45,660

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	370,388	346	0.0330	0.0040	1,536,501
High Turnover (Sit Down Restaurant)	421,379	346	0.0330	0.0040	1,368,706
Fast Food Restaurant with Drive Thru	646,114	346	0.0330	0.0040	2,098,682
Convenience Market with Gas Pumps	131,142	346	0.0330	0.0040	68,616
Convenience Market with Gas Pumps	190,906	346	0.0330	0.0040	99,886
Automobile Care Center	51,912	346	0.0330	0.0040	233,006
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	18,610,538	0.00
High Turnover (Sit Down Restaurant)	3,642,405	0.00
Fast Food Restaurant with Drive Thru	5,585,020	0.00

Convenience Market with Gas Pumps	125,486	0.00
Convenience Market with Gas Pumps	209,144	0.00
Automobile Care Center	3,543,540	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	75.6	—
High Turnover (Sit Down Restaurant)	143	—
Fast Food Restaurant with Drive Thru	212	—
Convenience Market with Gas Pumps	5.08	—
Convenience Market with Gas Pumps	8.47	—
Automobile Care Center	20.7	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00

Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Automobile Care Center	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0

Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074

Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8

Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Vehicle Data	Trip characteristics based on information from Traffic Analysis. Operational LSTs on-site travel was estimated to be 0.07 miles
Operations: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Water and Waste Water	The project includes the construction and operation of a 5,425 square foot automated car wash. Water usage for the car wash has been estimated based on the Water Use, Evaporation and Carryout Conveyor Car Washes (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle. Per the Perris Gateway Traffic Analysis, the Automated Car wash use is anticipated to generate 554 daily trips per day. On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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APPENDIX 4.4:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Riverside (SC)	2024	HHDT	Aggregate	Aggregate	Gasoline	7.589475903	347.9694468	0.092180823	92.18082291	321404.9638	347.9694468	1967302.751	6.12	HHDT
Riverside (SC)	2024	HHDT	Aggregate	Aggregate	Diesel	14792.02338	1911347.779	313.0439759	313043.9759		1911347.779			
Riverside (SC)	2024	HHDT	Aggregate	Aggregate	Electricity	47.99547895	5148.201829	0	0		5148.201829			
Riverside (SC)	2024	HHDT	Aggregate	Aggregate	Natural Gas	740.0705237	50458.80082	8.268807048	8268.807048		50458.80082			
Riverside (SC)	2024	LDA	Aggregate	Aggregate	Gasoline	469145.3818	20418129.53	688.4836596	688483.6596	700469.6115	20418129.53	22069128.65	31.51	LDA
Riverside (SC)	2024	LDA	Aggregate	Aggregate	Diesel	1473.049219	54327.45303	1.267188759	1267.188759		54327.45303			
Riverside (SC)	2024	LDA	Aggregate	Aggregate	Electricity	19934.69439	945704.6798	0	0		945704.6798			
Riverside (SC)	2024	LDA	Aggregate	Aggregate	Plug-in Hybrid	12893.65575	650966.9876	10.71876311	10718.76311		650966.9876			
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	Gasoline	40643.24621	1523061.246	62.04624692	62046.24692	62104.32538	1523061.246	1529163.988	24.62	LDT1
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	Diesel	18.16927182	339.6979643	0.013831102	13.83110227		339.6979643			
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	Electricity	60.98632141	2789.967089	0	0		2789.967089			
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	Plug-in Hybrid	52.35545177	2973.077776	0.044247357	44.24735695		2973.077776			
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	Gasoline	196761.1569	8732860.794	359.674683	359674.683	361927.3798	8732860.794	8893408.735	24.57	LDT2
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	Diesel	611.2140627	29007.74721	0.880423066	880.4230662		29007.74721			
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	Electricity	1212.721837	43455.52608	0	0		43455.52608			
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1617.209463	88084.6679	1.372273758	1372.273758		88084.6679			
Riverside (SC)	2024	LHDT1	Aggregate	Aggregate	Gasoline	17828.73734	656766.0119	48.36247552	48362.47552	75554.20605	656766.0119	1221087.42	16.16	LHDT1
Riverside (SC)	2024	LHDT1	Aggregate	Aggregate	Diesel	15247.60565	560367.9206	27.19173053	27191.73053		560367.9206			
Riverside (SC)	2024	LHDT1	Aggregate	Aggregate	Electricity	53.50587181	3953.487241	0	0		3953.487241			
Riverside (SC)	2024	LHDT2	Aggregate	Aggregate	Gasoline	2494.679179	89754.81853	7.38743171	7387.43171	22224.411	89754.81853	344827.7113	15.52	LHDT2
Riverside (SC)	2024	LHDT2	Aggregate	Aggregate	Diesel	6844.928194	254103.3578	14.83697929	14836.97929		254103.3578			
Riverside (SC)	2024	LHDT2	Aggregate	Aggregate	Electricity	13.8489928	969.5349487	0	0		969.5349487			
Riverside (SC)	2024	MCY	Aggregate	Aggregate	Gasoline	24077.0623	140258.0803	3.359217865	3359.217865	3359.217865	140258.0803	140258.0803	41.75	MCY
Riverside (SC)	2024	MDV	Aggregate	Aggregate	Gasoline	158529.7591	6468418.76	332.0736912	332073.6912	337278.1883	6468418.76	6673535.232	19.79	MDV
Riverside (SC)	2024	MDV	Aggregate	Aggregate	Diesel	2456.219583	102039.6434	4.306633032	4306.633032		102039.6434			
Riverside (SC)	2024	MDV	Aggregate	Aggregate	Electricity	1347.135818	48185.7285	0	0		48185.7285			
Riverside (SC)	2024	MDV	Aggregate	Aggregate	Plug-in Hybrid	1094.492843	54891.09982	0.897864131	897.864131		54891.09982			
Riverside (SC)	2024	MH	Aggregate	Aggregate	Gasoline	4781.777946	41623.53594	8.518926412	8518.926412	10212.97469	41623.53594	59176.14669	5.79	MH
Riverside (SC)	2024	MH	Aggregate	Aggregate	Diesel	2046.063726	17552.61075	1.694048275	1694.048275		17552.61075			
Riverside (SC)	2024	MHDT	Aggregate	Aggregate	Gasoline	1238.0029	49965.95549	9.588666638	9588.666638	73502.73221	49965.95549	624307.4842	8.49	MHDT
Riverside (SC)	2024	MHDT	Aggregate	Aggregate	Diesel	12954.3675	564761.4751	63.06414519	63064.14519		564761.4751			
Riverside (SC)	2024	MHDT	Aggregate	Aggregate	Electricity	40.46425607	2074.722372	0	0		2074.722372			
Riverside (SC)	2024	MHDT	Aggregate	Aggregate	Natural Gas	158.0466253	7505.331205	0.849920382	849.9203818		7505.331205			
Riverside (SC)	2024	OBUS	Aggregate	Aggregate	Gasoline	374.6153087	12781.812	2.496601383	2496.601383	4662.380277	12781.812	30088.9967	6.45	OBUS
Riverside (SC)	2024	OBUS	Aggregate	Aggregate	Diesel	219.2789175	15140.91273	1.951181612	1951.181612		15140.91273			
Riverside (SC)	2024	OBUS	Aggregate	Aggregate	Electricity	0.821516166	55.60331633	0	0		55.60331633			
Riverside (SC)	2024	OBUS	Aggregate	Aggregate	Natural Gas	34.6553722	2110.668656	0.214597282	214.5972817		2110.668656			
Riverside (SC)	2024	SBUS	Aggregate	Aggregate	Gasoline	423.5817437	16753.46749	1.914821769	1914.821769	5918.221943	16753.46749	37909.3201	6.41	SBUS
Riverside (SC)	2024	SBUS	Aggregate	Aggregate	Diesel	491.8063992	10225.99182	1.394925642	1394.925642		10225.99182			
Riverside (SC)	2024	SBUS	Aggregate	Aggregate	Electricity	2.445505521	61.99924762	0	0		61.99924762			
Riverside (SC)	2024	SBUS	Aggregate	Aggregate	Natural Gas	443.1589434	10867.86154	2.608474532	2608.474532		10867.86154			
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	Gasoline	146.2127201	18511.1132	3.282633075	3282.633075	11054.35384	18511.1132	49631.8201	4.49	UBUS
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	Diesel	0.3117338	30.10971099	0.002675115	2.675115035		30.10971099			
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	Electricity	0.120004951	18.36371585	0	0		18.36371585			
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	Natural Gas	252.109466	31072.23347	7.769045647	7769.045647		31072.23347			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Gasoline	6.232252524	303.889871	0.078875502	78.87550173	324061.9332	303.889871	2014903.459	6.22	HHDT
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Diesel	15281.49903	1950611.476	315.5182536	315518.2536		1950611.476			
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Electricity	103.9487733	11894.93596	0	0		11894.93596			
Riverside (SC)	2025	HHDT	Aggregate	Aggregate	Natural Gas	781.6601067	52093.15724	8.464804133	8464.804133		52093.15724			
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Gasoline	469318.5342	20373765.83	673.3165394	673316.5394	685799.5767	20373765.83	22281991.59	32.49	LDA
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Diesel	1383.809245	49996.02059	1.157204906	1157.204906		49996.02059			
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Electricity	23756.17576	1153396.904	0	0		1153396.904			
Riverside (SC)	2025	LDA	Aggregate	Aggregate	Plug-in Hybrid	14087.23202	704832.8394	11.32583244	11325.83244		704832.8394			
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Gasoline	39844.42885	1499609.575	59.92078241	59920.78241	59994.79347	1499609.575	1508277.871	25.14	LDT1
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Diesel	16.26032827	298.1728862	0.012131898	12.13189805		298.1728862			
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Electricity	84.57619148	4089.475353	0	0		4089.475353			
Riverside (SC)	2025	LDT1	Aggregate	Aggregate	Plug-in Hybrid	76.19034646	4280.647946	0.061879155	61.87915548		4280.647946			
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Gasoline	201900.7772	8973973.952	360.0165635	360016.5635	362521.4419	8973973.952	9168424.554	25.29	LDT2
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Diesel	648.0824816	30519.42791	0.906087045	906.0870448		30519.42791			
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Electricity	1658.408696	58637.73041	0	0		58637.73041			
Riverside (SC)	2025	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1963.286623	105293.4446	1.598791388	1598.791388		105293.4446			
Riverside (SC)	2025	LHDT1	Aggregate	Aggregate	Gasoline	17598.36242	652458.21	46.82732866	46827.32866	73403.79877	652458.21	1212550.7	16.52	LHDT1
Riverside (SC)	2025	LHDT1	Aggregate	Aggregate	Diesel	15075.59282	549831.8274	26.5764701	26576.4701		549831.8274			
Riverside (SC)	2025	LHDT1	Aggregate	Aggregate	Electricity	149.6982853	10260.66293	0	0		10260.66293			
Riverside (SC)	2025	LHDT2	Aggregate	Aggregate	Gasoline	2462.303572	88408.90183	7.133200743	7133.200743	21661.35468	88408.90183	341190.0394	15.75	LHDT2
Riverside (SC)	2025	LHDT2	Aggregate	Aggregate	Diesel	6820.445818	250292.8301	14.52815394	14528.15394		250292.8301			
Riverside (SC)	2025	LHDT2	Aggregate	Aggregate	Electricity	38.18158868	2488.307475	0	0		2488.307475			
Riverside (SC)	2025	MCY	Aggregate	Aggregate	Gasoline	24005.46384	138549.7935	3.307549619	3307.549619	3307.549619	138549.7935	138549.7935	41.89	MCY
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Gasoline	157992.5704	6448292.677	323.4938203	323493.8203	328676.5122	6448292.677	6678432.543	20.32	MDV
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Diesel	2427.253752	99526.12558	4.137752355	4137.752355		99526.12558			
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Electricity	1830.142844	64565.5975	0	0		64565.5975			
Riverside (SC)	2025	MDV	Aggregate	Aggregate	Plug-in Hybrid	1324.504282	66048.14278	1.044939643	1044.939643		66048.14278			
Riverside (SC)	2025	MH	Aggregate	Aggregate	Gasoline	4508.467531	38795.29207	7.939175542	7939.175542	9582.26868	38795.29207	55815.16631	5.82	MH
Riverside (SC)	2025	MH	Aggregate	Aggregate	Diesel	2015.081247	17019.87424	1.643093138	1643.093138		17019.87424			
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Gasoline	1219.56756	49718.98291	9.418016992	9418.016992	73843.62953	49718.98291	635118.1523	8.60	MHDT
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Diesel	13275.74248	571359.1019	63.53271272	63532.71272		571359.1019			
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Electricity	118.7135177	6143.919124	0	0		6143.919124			
Riverside (SC)	2025	MHDT	Aggregate	Aggregate	Natural Gas	169.7860028	7896.148358	0.892899818	892.8998181		7896.148358			
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Gasoline	362.5102847	12151.28279	2.347950658	2347.950658	4510.758842	12151.28279	29688.04546	6.58	OBUS
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Diesel	224.9321911	15183.67961	1.940769719	1940.769719		15183.67961			
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Electricity	2.021694394	134.2617193	0	0		134.2617193			
Riverside (SC)	2025	OBUS	Aggregate	Aggregate	Natural Gas	36.9521167	2218.821339	0.222038465	222.0384652		2218.821339			
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Gasoline	426.2067312	16859.59503	1.92304347	1923.04347	5926.536182	16859.59503	38036.5897	6.42	SBUS
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Diesel	483.8964136	9931.139032	1.352394432	1352.394432		9931.139032			
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Electricity	5.22909553	143.1587763	0	0		143.1587763			
Riverside (SC)	2025	SBUS	Aggregate	Aggregate	Natural Gas	457.8096259	11102.69686	2.65109828	2651.09828		11102.69686			
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Gasoline	146.4959788	18545.85863	3.288543187	3288.543187	10964.44655	18545.85863	49731.99827	4.54	UBUS
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Diesel	0.3117338	30.10971099	0.002675115	2.675115035		30.10971099			
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Electricity	0.20926462	33.75780976	0	0		33.75780976			
Riverside (SC)	2025	UBUS	Aggregate	Aggregate	Natural Gas	252.5418031	31122.27213	7.673228246	7673.228246		31122.27213			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Gasoline	5.301713201	269.8155783	0.068469804	68.46980429	326183.3321	269.8155783	2063431.007	6.33	HHDT
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Diesel	15687.78827	1988453.103	317.4311809	317431.1809		1988453.103			
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Electricity	181.0556624	20854.79688	0	0		20854.79688			
Riverside (SC)	2026	HHDT	Aggregate	Aggregate	Natural Gas	822.9858358	53853.29132	8.683681391	8683.681391		53853.29132			
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Gasoline	470220.2179	20338993.18	657.9019755	657901.9755	670683.7214	20338993.18	22423581.77	33.43	LDA
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Diesel	1278.903087	45656.81459	1.04446634	1044.46634		45656.81459			
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Electricity	27110.24505	1294343.513	0	0		1294343.513			
Riverside (SC)	2026	LDA	Aggregate	Aggregate	Plug-in Hybrid	15111.22646	744588.2646	11.73727955	11737.27955		744588.2646			
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Gasoline	39097.73904	1475770.596	57.77065353	57770.65353	57860.51954	1475770.596	1487146.031	25.70	LDT1
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Diesel	13.62192751	246.3725383	0.009960174	9.960173709		246.3725383			
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Electricity	113.2552136	5510.233656	0	0		5510.233656			
Riverside (SC)	2026	LDT1	Aggregate	Aggregate	Plug-in Hybrid	101.686721	5618.828531	0.079905828	79.90582849		5618.828531			
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Gasoline	207104.2919	9189016.153	359.2463978	359246.3978	361967.9264	9189016.153	9414279.735	26.01	LDT2
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Diesel	682.5626595	31821.71127	0.923868936	923.8689364		31821.71127			
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Electricity	2094.273367	72949.08151	0	0		72949.08151			
Riverside (SC)	2026	LDT2	Aggregate	Aggregate	Plug-in Hybrid	2291.195555	120492.7893	1.797659677	1797.659677		120492.7893			
Riverside (SC)	2026	LHDT1	Aggregate	Aggregate	Gasoline	17398.34216	648258.6134	45.43230342	45432.30342	71378.10447	648258.6134	1205852.586	16.89	LHDT1
Riverside (SC)	2026	LHDT1	Aggregate	Aggregate	Diesel	14868.32038	538771.2685	25.94580105	25945.80105		538771.2685			
Riverside (SC)	2026	LHDT1	Aggregate	Aggregate	Electricity	286.9935654	18822.70429	0	0		18822.70429			
Riverside (SC)	2026	LHDT2	Aggregate	Aggregate	Gasoline	2430.034218	87077.56554	6.894650038	6894.650038	21104.05262	87077.56554	337819.1023	16.01	LHDT2
Riverside (SC)	2026	LHDT2	Aggregate	Aggregate	Diesel	6777.719033	246178.6334	14.20940258	14209.40258		246178.6334			
Riverside (SC)	2026	LHDT2	Aggregate	Aggregate	Electricity	73.06243174	4562.903373	0	0		4562.903373			
Riverside (SC)	2026	MCY	Aggregate	Aggregate	Gasoline	23937.33086	137142.5787	3.259850983	3259.850983	3259.850983	137142.5787	137142.5787	42.07	MCY
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Gasoline	157654.7501	6425602.492	314.7102388	314710.2388	319841.9429	6425602.492	6678197.896	20.88	MDV
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Diesel	2395.180805	96875.32958	3.958815392	3958.815392		96875.32958			
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Electricity	2298.450518	79855.22944	0	0		79855.22944			
Riverside (SC)	2026	MDV	Aggregate	Aggregate	Plug-in Hybrid	1539.714974	75864.84529	1.172888712	1172.888712		75864.84529			
Riverside (SC)	2026	MH	Aggregate	Aggregate	Gasoline	4250.734566	36312.00617	7.425870006	7425.870006	9021.53348	36312.00617	52833.22222	5.86	MH
Riverside (SC)	2026	MH	Aggregate	Aggregate	Diesel	1981.725027	16521.21606	1.595663475	1595.663475		16521.21606			
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Gasoline	1204.155669	49534.83957	9.263997368	9263.997368	74067.74937	49534.83957	646239.7348	8.72	MHDT
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Diesel	13571.64646	577213.7586	63.87135704	63871.35704		577213.7586			
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Electricity	219.063018	11241.81607	0	0		11241.81607			
Riverside (SC)	2026	MHDT	Aggregate	Aggregate	Natural Gas	180.8134913	8249.320573	0.932394966	932.394966		8249.320573			
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Gasoline	350.9276772	11597.74291	2.216471452	2216.471452	4375.818964	11597.74291	29375.18585	6.71	OBUS
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Diesel	230.0918445	15233.6578	1.930307181	1930.307181		15233.6578			
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Electricity	3.398598414	222.0634986	0	0		222.0634986			
Riverside (SC)	2026	OBUS	Aggregate	Aggregate	Natural Gas	39.09901647	2321.721637	0.229040331	229.0403313		2321.721637			
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Gasoline	428.6165302	16957.83533	1.930418011	1930.418011	5931.110106	16957.83533	38160.16985	6.43	SBUS
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Diesel	474.8674611	9627.108018	1.308586985	1308.586985		9627.108018			
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Electricity	8.960082283	245.5300912	0	0		245.5300912			
Riverside (SC)	2026	SBUS	Aggregate	Aggregate	Natural Gas	472.4302591	11329.69641	2.69210511	2692.10511		11329.69641			
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Gasoline	146.7792196	18580.60009	3.25315693	3253.15693	10939.25606	18580.60009	49832.17645	4.56	UBUS
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Diesel	0.3117338	30.10971099	0.002675115	2.675114958		30.10971099			
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Electricity	0.298524289	49.15190367	0	0		49.15190367			
Riverside (SC)	2026	UBUS	Aggregate	Aggregate	Natural Gas	252.9741581	31172.31474	7.683424013	7683.424013		31172.31474			

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August 1, 2023

Project No. 235075-10A

Mr. Mike Naggar
Mike Naggar & Associates, Inc
445 S. D St.
Perris, CA 92570

Subject: **Preliminary Geotechnical Interpretive Report, Proposed Perris Gateway Commercial Development, Parcel 2 of PM 36512, and Parcels 2 and 3 of PM 36582, Assessor's Parcel Number 314-170-020, 317-180-023, and -024, Located North of Ramona Expressway and East of I-215, City of Perris, Riverside County, California**

Earth Strata Geotechnical Services is pleased to present our preliminary geotechnical interpretive report for the proposed commercial development, Assessor's Parcel Number 314-170-020, 317-180-023, 317-80-024, located north of Ramona Expressway and east of I-215 in the City of Perris, Riverside County, California. The purpose of this study is to evaluate the nature, distribution, engineering properties, and geologic strata underlying the site with respect to the proposed development.

Earth Strata Geotechnical Services appreciates the opportunity to offer our consultation and advice on this project. In the event that you have any questions, please do not hesitate to contact the undersigned at your earliest convenience.

Respectfully submitted,

EARTH STRATA GEOTECHNICAL SERVICES

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Figure 2 – Regional Geologic Map (Page 5)
APPENDIX A – References (Rear of Text)
APPENDIX B – Exploratory Logs (Rear of Text)
APPENDIX C – Laboratory Procedures and Test Results (Rear of Text)
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APPENDIX E – Asphaltic Pavement Calculations (Rear of Text)
APPENDIX F – General Earthwork and Grading Specifications (Rear of Text)
Plate 1 – Geotechnical Map (Rear of Text)

INTRODUCTION

Earth Strata Geotechnical Services is pleased to present our preliminary geotechnical interpretive report for the proposed development. The purpose of this study was to evaluate the nature, distribution, engineering properties, and geologic strata underlying the site with respect to the proposed development, and then provide preliminary grading and foundation design recommendations based on the plans you provided. The general location of the subject property is indicated on the Vicinity Map, Figure 1. The plans you provided were used as the base map to show geologic conditions within the subject site, see Geotechnical Map, Plate 1.

SITE DESCRIPTION

The subject property is located north of Ramona Expressway and east of I-215 in the City of Perris, Riverside County, California. The approximate location of the site is shown on the Vicinity Map, Figure 1.

The subject property is comprised of undeveloped parcels of land. An abandoned roadway transects the western portion of the site in a roughly northwest to southeast direction. Topographic relief at the subject property is relatively low with the terrain being generally flat. Elevations at the site range from approximately 1480 to 1500 feet above mean sea level (msl), for a difference of about 20± feet across the entire site. Drainage within the subject property generally flows to the east.

The site is currently bordered by commercial development to the north, Webster Avenue to the east, I-215 to the west, and Ramona Expressway to the south. Most of the vegetation on the site consists of dense amounts of annual weeds/grasses.

PROPOSED DEVELOPMENT AND GRADING

The proposed commercial development is expected to consist of concrete, wood or steel framed one- and/or two-story structures utilizing slab on grade construction with associated streets, landscape areas, and utilities. The current development plans include a storage facility, a gas station and two fast food restaurants as part of Phase 1 development located in the northwestern portion of the site and eight (8) commercial building pads positioned in the southeastern portion of the site for Phase 2 development. The plans provided by you were utilized in our exploration and form the base for our Geotechnical Map, Plate 1.

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PERRIS GATEWAY COMMERCIAL DEVELOPMENT	235075-10A
VICINITY MAP	SEE BAR SCALE
	AUG 2023 / FIGURE 1

FIELD EXPLORATION AND LABORATORY TESTING

Field Exploration

Subsurface exploration within the subject site was performed on July 25, 2023 for the exploratory excavations. A truck mounted hollow-stem-auger drill rig was utilized to drill six (6) borings throughout the site to a maximum depth of 9 feet. An underground utilities clearance was obtained from Underground Service Alert of Southern California, prior to the subsurface exploration.

Earth materials encountered during exploration were classified and logged in general accordance with the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) of ASTM D 2488. Upon completion of laboratory testing, exploratory logs and sample descriptions may have been reconciled to reflect laboratory test results with regard to ASTM D 2487.

Associated with the subsurface exploration was the collection of bulk (disturbed) samples and relatively undisturbed samples of earth materials for laboratory testing and analysis. The relatively undisturbed samples were obtained with a 3 inch outside diameter modified California split-spoon sampler lined with 1-inch-high brass rings. Samples obtained using a hollow stem auger drill rig, were mechanically driven with successive 30 inch drops of a 140-pound automatic trip safety hammer. The blow count per one-foot increment was recorded in the boring logs. The central portions of the driven samples were placed in sealed containers and transported to our laboratory for testing and analysis. The approximate exploratory locations are shown on Plate 1 and descriptive logs are presented in Appendix B.

Laboratory Testing

Maximum dry density/optimum moisture content, expansion potential, pH, resistivity, sulfate content, chloride content, and in-situ density/moisture content were determined for selected undisturbed and bulk samples of earth materials, considered representative of those encountered. An evaluation of the test data is reflected throughout the Conclusions and Recommendations section of this report. A brief description of laboratory test criteria and summaries of test data are presented in Appendix C.

FINDINGS

Regional Geology

Regionally, the site is located in the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are characterized by northwest trending steep mountain ranges separated by sediment filled elongated valleys. The dominant structural geologic features reflect the northwest trend of the province. Associated with and subparallel to the San Andreas Fault are the San Jacinto Fault, Newport-Inglewood, and the Whittier-Elsinore Fault. The Santa Ana Mountains abut the west side of the Elsinore Fault while the Perris Block forms the other side of the fault zone to the east. The Perris Block is bounded to the east by the San Jacinto Fault. The northern perimeter of the Los Angeles basin forms part of a northerly dipping blind thrust fault at the boundary between the Peninsular Ranges Province and the Transverse Range Province.

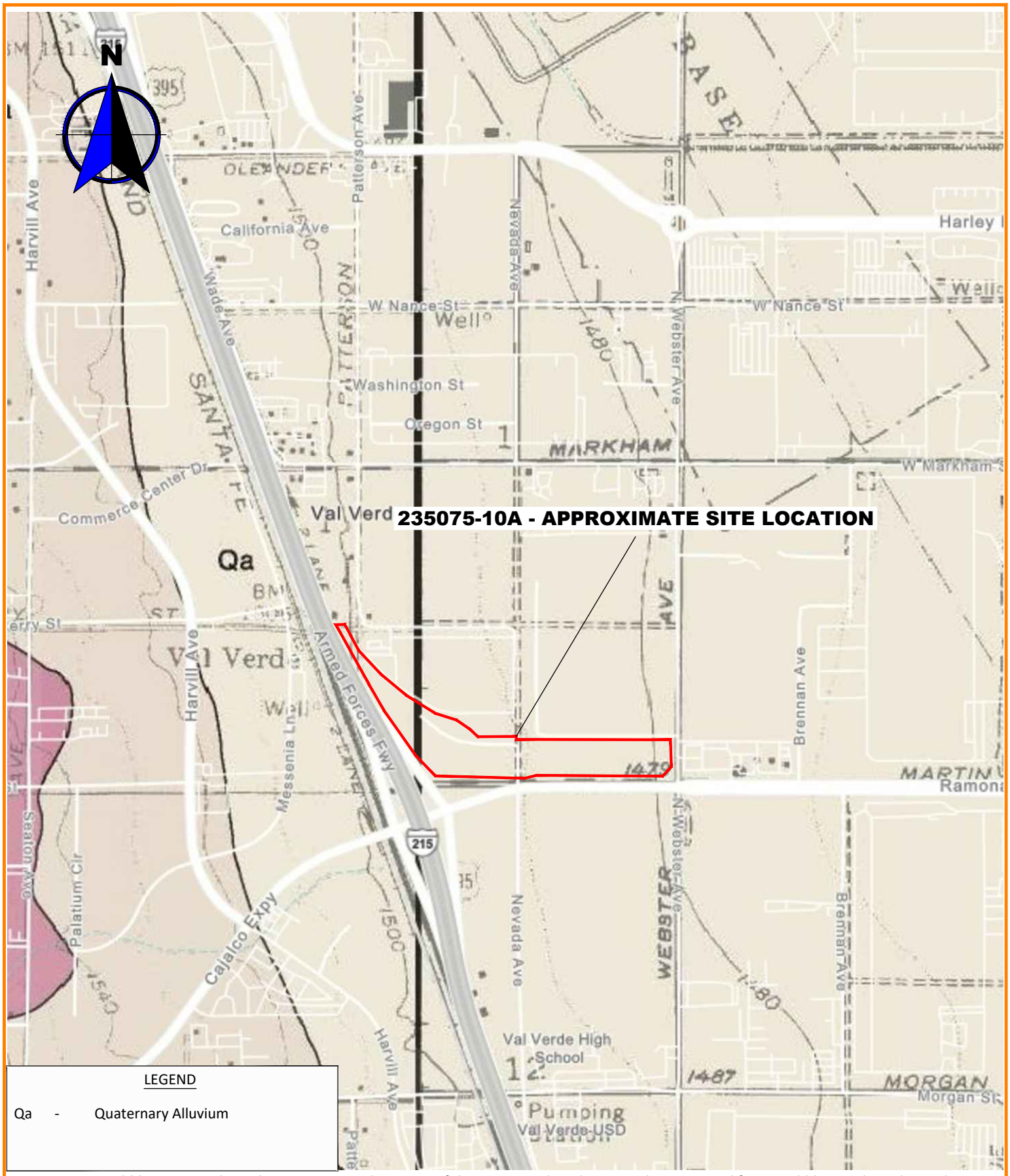
The mountainous regions within the Peninsular Ranges Province are comprised of Pre-Cretaceous, metasedimentary, and metavolcanic rocks along with Cretaceous plutonic rocks of the Southern California

Batholith. The low lying areas are primarily comprised of Tertiary and Quaternary non-marine alluvial sediments consisting of alluvial deposits, sandstones, claystones, siltstones, conglomerates, and occasional volcanic units. A map illustrating the regional geology is presented on the Regional Geologic Map, Figure 2.

Local Geology

The earth materials on the site are primarily comprised of Quaternary alluvial materials. A general description of the dominant earth materials observed on the site is provided below:

- Quaternary Alluvium (map symbol Qal): Quaternary alluvium was encountered to the maximum depth explored. These alluvial deposits consist predominately of interlayered brown to light brown, fine to coarse grained silty sand. These deposits were generally noted to be in a dry to slightly moist medium dense to very dense state.



LEGEND

Qa - Quaternary Alluvium

REFERENCES: Dibblee, T.W. and Minch, J.A., 2003, Geologic map of the Perris quadrangle, Riverside County, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-112, 1:24,000.

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PERRIS GATEWAY COMMERCIAL DEVELOPMENT	235075-10A
REGIONAL GEOLOGIC MAP	SCALE 1:18,056
	AUG 2023
	FIGURE 2

Faulting

The project is located in a seismically active region and as a result, significant ground shaking will likely impact the site within the design life of the proposed project. The geologic structure of the entire southern California area is dominated by northwest-trending faults associated with the San Andreas Fault system, which accommodates for most of the right lateral movement associated with the relative motion between the Pacific and North American tectonic plates. Known active faults within this system include the Newport-Inglewood, Whittier-Elsinore, San Jacinto and San Andreas Faults.

No active faults are known to project through the site and the site is not located within an Alquist-Priolo Earthquake Fault Zone, established by the State of California to restrict the construction of new habitable structures across identifiable traces of known active faults. An active fault is defined by the State of California as having surface displacement within the past 11,000 years or during the Holocene geologic time period. Based on our mapping of the subject site, review of current and historical aerial imagery, lack of lineaments indicative of active faulting, and the data compiled during the preparation of this report, it is our interpretation that the potential for surface rupture to adversely impact the proposed structures is very low to remote.

Based on our review of regional geologic maps and applicable computer programs (USGS Seismic Design Maps and USGS Earthquake Hazard Programs), the San Jacinto Fault with an approximate source to site distance of 13.69 kilometers is the closest known active fault anticipated to produce the highest ground accelerations, with an anticipated maximum modal magnitude of 7.62. A list of faults as well as a list of significant historical seismic events within a 100km radius of the subject site are included in Appendix D.

Landslides

Landslide debris was not observed during our subsurface exploration and no ancient landslides are known to exist on the site. No landslides are known to exist, or have been mapped, in the vicinity of the site. Geologic mapping of the site conducted during our investigation, and review of aerial imagery of the site, reveal no geomorphic expressions indicative of landsliding.

CONCLUSIONS AND RECOMMENDATIONS

General

From geotechnical and engineering geologic points of view, the subject property is considered suitable for the proposed development, provided the following conclusions and recommendations are incorporated into the plans and are implemented during construction.

Earthwork

Earthwork and Grading

The provisions of the 2022 California Building Code (CBC), including the General Earthwork and Grading Specifications in the last Appendix of this report, should be applied to all earthwork and grading operations, as well as in accordance with all applicable grading codes and requirements of the appropriate reviewing agency. Unless specifically revised or amended herein, grading operations should also be performed in accordance with applicable provisions of our General Earthwork and Grading Specifications within the last appendix of this report.

Clearing and Grubbing

Vegetation including trees, grasses, weeds, brush, shrubs, or any other debris should be stripped from the areas to be graded and properly disposed of offsite. In addition, laborers should be utilized to remove any roots, branches, or other deleterious materials during grading operations.

Earth Strata Geotechnical Services should be notified at the appropriate times to provide observation and testing services during Clearing and Grubbing operations. Any buried structures or unanticipated conditions should be brought to our immediate attention.

Excavation Characteristics

Based on the results of our exploration and experience with similar projects in similar settings, the near surface earth materials, will be readily excavated with conventional earth moving equipment.

Groundwater

Groundwater was not observed during our subsurface exploration. Local well data from the California Department of Water Resources indicates groundwater at depths greater than 50 feet below ground surface.

Ground Preparation for Fill Areas

For each area to receive compacted fill, the removal of low density, compressible earth materials, such as topsoil and upper alluvial materials should continue until firm competent alluvial material is encountered. Removal excavations are subject to verification by the project engineer, geologist or their representative. Prior to placing compacted fills, the exposed bottom in each removal area should be scarified to a depth of 6 inches or more, watered or air dried as necessary to achieve near optimum moisture conditions and then compacted to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557.

The intent of remedial grading is to diminish the potential for hydro-consolidation, slope instability, and/or settlement. Remedial grading should extend beyond the perimeter of the proposed structures a horizontal distance equal to the depth of excavation or a minimum of 5 feet, whichever is greater. For cursory purposes the anticipated removal depths are shown on the enclosed Geotechnical Map, Plate 1. In general, the anticipated removal depths should vary from 3 to 5 feet

below existing grade in the proposed building areas and 2 to 3 feet below existing grade in parking lot areas.

Wet Removals

Wet alluvial materials will probably not be encountered within the site. If removals of wet alluvial materials are required, special grading equipment and procedures can greatly reduce overall costs. Careful planning by an experienced grading contractor can reduce the need for special equipment, such as swamp cats, draglines, excavators, pumps, and top loading earthmovers. Possible solutions may include the placement of imported angular rock and/or geotextile ground reinforcement. More specific recommendations can be provided based on the actual conditions encountered. Drying or mixing of wet materials with dry materials will be needed to bring the wet materials to near optimum moisture prior to placing wet materials into compacted fills.

Oversize Rock

Oversize rock is not expected to be encountered during grading. Oversize rock that is encountered (i.e., rock exceeding a maximum dimension of 12 inches) should be disposed of offsite or stockpiled onsite and crushed for future use. The disposal of oversize rock is discussed in greater detail in General Earthwork and Grading Specifications within the last appendix of this report.

Compacted Fill Placement

Compacted fill materials should be placed in 6 to 8 inch maximum (uncompacted) lifts, watered or air dried as necessary to achieve uniform near optimum moisture content and then compacted to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557.

Import Earth Materials

Should import earth materials be needed to achieve final design grades, all potential import materials should be free of deleterious/oversize materials, non-expansive, and approved by the project geotechnical consultant prior to delivery onsite.

Temporary Backcuts

It is the responsibility of the grading contractor to follow all Cal-OSHA requirements with regard to excavation safety. Where existing developments are upslope, adequate slope stability to protect those developments must be maintained. Temporary backcuts will be required to accomplish removals of unsuitable materials and possibly, to perform canyon removals, stabilization fills, and/or keyways. Backcuts should be excavated at a gradient of 1:1 (h:v) or flatter. Flatter backcuts may be required where geologic structure or earth materials are unfavorable. It is imperative that grading schedules minimize the exposure time of the unsupported excavations. All excavations should be stabilized within 30 days of initial excavation.

Cut/Fill Transitions

Cut/fill transitions should be eliminated from all building areas where the depth of fill placed within the "fill" portion exceeds proposed footing depths. This is to diminish distress to structures resulting from excessive differential settlement. The entire foundation of each structure should be founded on a uniform bearing material. This should be accomplished by overexcavating the "cut" portion and replacing the excavated materials as properly compacted fill. Refer to the following table for recommended depths of overexcavation.

DEPTH OF FILL ("fill" portion)	DEPTH OF OVEREXCAVATION ("cut" portion)
Up to 5 feet	Equal Depth
5 to 10 feet	5 feet
Greater than 10 feet	One-half the thickness of fill placed on the "fill" portion (10 feet maximum)

Overexcavation of the "cut" portion should extend beyond the building perimeter a horizontal distance equal to the depth of overexcavation or a minimum of 5 feet, whichever is greater.

Cut Areas

In cut areas, an area a minimum of 5 feet beyond the footprint of the proposed structures should overexcavated until; competent bottoms are achieved; to a minimum 3 feet below the proposed foundations; or per the Overexcavation Table above; (whichever is greater) and replaced with compacted fill. Final determination of areas that require overexcavation should be determined in the field by a representative of Earth Strata Geotechnical Services.

Shrinkage, Bulking and Subsidence

Volumetric changes in earth material quantities will occur when poorly consolidated earth materials are replaced with properly compacted fill. Estimates of the percent shrinkage/bulking factors for the various geologic units observed on the subject property are based on in-place densities and on the estimated average percent of relative compaction achieved during grading.

GEOLOGIC UNIT	SHRINKAGE (%)
Alluvium	5 to 10

Subsidence from scarification and recompaction of exposed bottom surfaces is expected to be negligible to approximately 0.01 foot.

The estimates of shrinkage/bulking and subsidence are intended as an aid for project engineers in determining earthwork quantities. Since many variables can affect the accuracy of these estimates, they should be used with caution and contingency plans should be in place for balancing the project.

Geotechnical Observations

Clearing operations, removal of unsuitable materials, and general grading procedures should be observed by the project geotechnical consultant or his representative. No compacted fill should be placed without observations by the geotechnical consultant or his representative to verify the adequacy of the removals.

The project geotechnical consultant or his representative should be present to observe grading operations and to check that minimum compaction requirements and proper lift thicknesses are being met, as well as to verify compliance with the other recommendations presented herein.

Post Grading Considerations

Slope Landscaping and Maintenance

Adequate slope and building pad drainage is essential for the long term performance of the subject site. The gross stability of graded slopes should not be adversely affected, provided all drainage provisions are properly constructed and maintained. Engineered slopes should be landscaped with deep rooted, drought tolerant maintenance free plant species, as recommended by the project landscape architect.

Site Drainage

Control of site drainage is important for the performance of the proposed project. Roof gutters are recommended for the proposed structures. Pad and roof drainage should be collected and transferred to driveways, adjacent streets, storm-drain facilities, or other locations approved by the building official in non-erosive drainage devices. Drainage should not be allowed to pond on the pad or against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters located within retaining wall backfill should be sealed to prevent moisture intrusion into the backfill. Planters located next to structures should be sealed to the depth of the footings. Drainage control devices require periodic cleaning, testing and maintenance to remain effective.

At a minimum, pad drainage should be designed at the minimum gradients required by the CBC. To divert water away from foundations, the ground surface adjacent to foundations should also be graded at the minimum gradients required per the CBC.

Utility Trenches

All utility trench backfill should be compacted at near optimum moisture to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557. For utility trench backfill within pavement areas the upper 6 inches of subgrade materials should be compacted to 95 percent of the maximum dry density determined by ASTM D 1557. This includes within the street right-of-ways, utility easements, under footings, sidewalks, driveways and building floor slabs, as well as within or adjacent to any slopes. Backfill should be placed in approximately 6 to 8 inch maximum loose lifts and then mechanically compacted with a hydro-hammer, rolling with a sheepsfoot, pneumatic

tampers, or similar equipment. The utility trenches should be tested by the project geotechnical engineer or their representative to verify minimum compaction requirements are obtained.

In order to minimize the penetration of moisture below building slabs, all utility trenches should be backfilled with compacted fill, lean concrete or concrete slurry where they undercut the perimeter foundation. Utility trenches that are proposed parallel to any building footings (interior and/or exterior trenches), should not be located within a 1:1 (h:v) plane projected downward from the outside bottom edge of the footing.

SEISMIC DESIGN CONSIDERATIONS

Ground Motions

Structures are required to be designed and constructed to resist the effects of seismic ground motions as provided in the 2022 California Building Code Section 1613. The design is dependent on the site class, occupancy category I, II, III, or IV, mapped spectral accelerations for short periods (S_s), and mapped spectral acceleration for a 1-second period (S_1).

In order for structural design to comply with the 2022 CBC, the USGS "US Seismic Design Maps" online tool was used to compile spectral accelerations for the subject property based on data and maps jointly compiled by the United States Geological Survey (USGS) and the California Geological Survey (CGS). The data found in the following table is based on the Maximum Considered Earthquake (MCE) with 5% damped ground motions having a 2% probability of being exceeded in 50 years (2,475 year return period).

The seismic design coefficients were determined by a combination of the site class, mapped spectral accelerations, and occupancy category. The following seismic design coefficients should be implemented during design of the proposed structures. Summaries of the Seismic Hazard Deaggregation graphs and test data are presented in Appendix D.

2022 CBC	FACTOR (ASCE 7-22)
Site Location	Latitude: 33.845142° (North) Longitude: -117.246680°(West)
Site Class	Default
Mapped Spectral Accelerations for short periods, S_s	1.5 g
Mapped Spectral Accelerations for 1-Second Period, S_1	0.56 g
Maximum Considered Earthquake Spectral Response Acceleration for Short Periods, S_{ms}	1.72 g
Maximum Considered Earthquake Spectral Response Acceleration for 1-Second Period, S_{m1}	1.44 g
Design Spectral Response Acceleration for Short Periods, S_{DS}	1.15 g
Design Spectral Response Acceleration for 1-Second Period, S_{D1}	0.96 g
Seismic Design Category	D
Importance Factor Based on Occupancy Category	II

We performed the probabilistic seismic hazard assessment for the site in accordance with the 2022 CBC, Section 1803.5.11 and 1803.5.12. The probabilistic seismic hazard maps and data files were jointly prepared by the United States Geological Survey (USGS) and the California Geological Survey (CGS) and can be found at the CGS Probabilistic Seismic Hazards Mapping Ground Motion Page. Actual ground shaking intensities at the site may be substantially higher or lower based on complex variables such as the near source directivity effects, depth and consistency of earth materials, topography, geologic structure, direction of fault rupture, and seismic wave reflection, refraction, and attenuation rates. The mean peak ground acceleration was calculated to be 0.6g.

Secondary Seismic Hazards

Secondary effects of seismic shaking considered as potential hazards include several types of ground failure as well as induced flooding. Different types of ground failure, which could occur as a consequence of severe ground shaking at the site, include landslides, ground lurching, shallow ground rupture, and liquefaction/lateral spreading. The probability of occurrence of each type of ground failure depends on the severity of the earthquake, distance from faults, topography, the state of subsurface earth materials, groundwater conditions, and other factors. Based on our experience, subsurface exploration, and laboratory testing, all of the above secondary effects of seismic activity are considered unlikely.

Seismically induced flooding is normally a consequence of a tsunami (seismic sea wave), a seiche (i.e., a wave-like oscillation of surface water in an enclosed basin that may be initiated by a strong earthquake) or failure of a major reservoir or retention system up gradient of the site. Since the site is at an elevation of more than 1400 feet above mean sea level and is located more than 25 miles inland from the nearest coastline of the Pacific Ocean, the potential for seismically induced flooding due to a tsunami is considered nonexistent. Since no enclosed bodies of water lie adjacent to or up gradient of the site, the likelihood for induced flooding due to a dam failure or a seiche overcoming the dam's freeboard is considered nonexistent.

Liquefaction and Lateral Spreading

Liquefaction occurs as a result of a substantial loss of shear strength or shearing resistance in loose, saturated, cohesionless earth materials subjected to earthquake induced ground shaking. Potential impacts from liquefaction include loss of bearing capacity, liquefaction related settlement, lateral movements, and surface manifestation such as sand boils. Seismically induced settlement occurs when loose sandy soils become denser when subjected to shaking during an earthquake. The three factors determining whether a site is likely to be subject to liquefaction include seismic shaking, type and consistency of earth materials, and groundwater level. The proposed structures will be supported by compacted fill and competent very dense alluvium, with no shallow groundwater. As such, the potential for earthquake induced liquefaction and lateral spreading beneath the proposed structures is considered very low to remote due to the recommended compacted fill, relatively low groundwater level, and the dense nature of the deeper onsite earth materials.

TENTATIVE FOUNDATION DESIGN RECOMMENDATIONS

General

Provided grading is performed in accordance with the recommendations of this report, shallow foundations are considered feasible for support of the proposed structures. Tentative foundation recommendations are provided herein and graphic presentations of relevant recommendations may also be included on the enclosed map.

Allowable Bearing Values

An allowable bearing value of 2,000 pounds per square foot (psf) is recommended for design of 24-inch square pad footings and 12-inch-wide continuous footings founded at a minimum depth of 18 inches below the lowest adjacent final grade. This value may be increased by 20 percent for each additional 1-foot of width and/or depth to a maximum value of 2,500 psf. Recommended allowable bearing values include both dead and frequently applied live loads and may be increased by one third when designing for short duration wind or seismic forces.

Settlement

Based on the settlement characteristics of the earth materials that underlie the building sites and the anticipated loading, we estimate that the maximum total settlement of the footings will be less than approximately ¾ inch. Differential settlement is expected to be about ½ inch over a horizontal distance of approximately 20 feet, for an angular distortion ratio of 1:480. It is anticipated that the majority of the settlement will occur during construction or shortly after the initial application of loading.

The above settlement estimates are based on the assumption that the grading and construction are performed in accordance with the recommendations presented in this report and that the project geotechnical consultant will observe or test the earth material conditions in the footing excavations.

Lateral Resistance

Passive earth pressure of 250 psf per foot of depth to a maximum value of 2,500 psf may be used to establish lateral bearing resistance for footings. For areas covered with hardscape, passive earth pressure may be taken from the surface. For areas without hardscape, the upper 12 inches of the soil profile must be neglected when calculating passive earth pressure. A coefficient of friction of 0.36 times the dead load forces may be used between concrete and the supporting earth materials to determine lateral sliding resistance. The above values may be increased by one-third when designing for short duration wind or seismic forces. When combining passive and friction for lateral resistance, the passive component should be reduced by one third. In no case shall the lateral sliding resistance exceed one-half the dead load for clay, sandy clay, sandy silty clay, silty clay, and clayey silt.

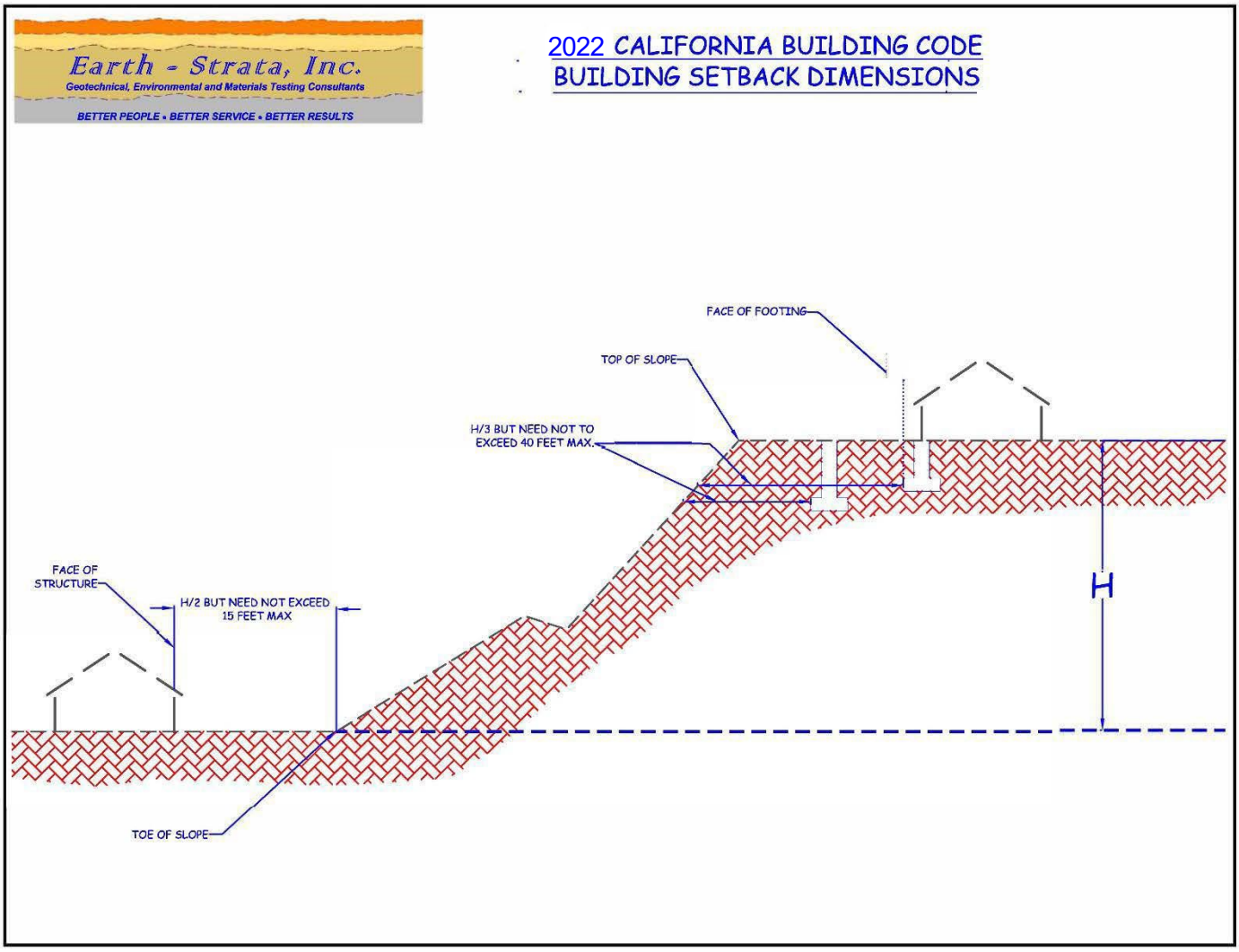
The above lateral resistance values are based on footings for an entire structure being placed directly against compacted fill.

Structural Setbacks and Building Clearance

Structural setbacks are required per the 2022 California Building Code (CBC). Additional structural setbacks are not required due to geologic or geotechnical conditions within the site. Improvements constructed in close proximity to natural or properly engineered and compacted slopes can, over time, be affected by natural processes including gravity forces, weathering, and long term secondary settlement. As a result, the CBC requires that buildings and structures be setback or footings deepened to resist the influence of these processes.

For structures that are planned near ascending and descending slopes, the footings should be embedded to satisfy the requirements presented in the CBC, Section 1808.7 as illustrated in the following Foundation Clearances from Slopes diagram.

FOUNDATION CLEARANCES FROM SLOPES



When determining the required clearance from ascending slopes with a retaining wall at the toe, the height of the slope shall be measured from the top of the wall to the top of the slope.

Foundation Observations

In accordance with the 2022 CBC and prior to the placement of forms, concrete, or steel, all foundation excavations should be observed by the geologist, engineer, or his representative to verify that they have been excavated into competent bearing materials. The excavations should be per the approved plans, moistened, cleaned of all loose materials, trimmed neat, level, and square. Any moisture softened earth materials should be removed prior to steel or concrete placement.

Earth materials from foundation excavations should not be placed in slab on grade areas unless the materials are tested for expansion potential and compacted to a minimum of 90 percent of the maximum dry density.

Expansive Soil Considerations

Preliminary laboratory test results indicate onsite earth materials exhibit an expansion potential of **VERY LOW to LOW** as classified in accordance with 2022 CBC Section 1803.5.3 and ASTM D 4829. Additional, testing for expansive soil conditions should be conducted upon completion of rough grading. The following recommendations should be considered the very minimum requirements, for the earth materials tested. It is common practice for the project architect or structural engineer to require additional slab thickness, footing sizes, and/or reinforcement.

Low Expansion Potential (Expansion Index of 50 or Less)

Our laboratory test results indicate that the earth materials onsite exhibit a **VERY LOW to LOW** expansion potential as classified in accordance with 2022 CBC Section 1803.5.3 and ASTM D 4829. Since the onsite earth materials exhibit expansion indices of 20 or less, the design of slab on ground foundations is exempt from the procedures outlined in Section 1808.6.1 or 1808.6.2.

Footings

- Exterior continuous footings may be founded at the minimum depths below the lowest adjacent final grade (i.e. 18-inch minimum depth for one-story and two-story construction and 24-inch minimum depth for three-story construction). Interior continuous footings for one-, two-, and three-story construction may be founded at a minimum depth of 12 inches below the lowest adjacent final grade. All continuous footings should have a minimum width of 18 inches, for one- and two-story structures and 24 inches for three-story structures, respectively per Table 1809.7 of the 2022 CBC, and should be reinforced with a minimum of four (4) No. 4 bars, two (2) top and two (2) bottom.

- Exterior pad footings intended to support roof overhangs, such as second story decks, patio covers and similar construction should be a minimum of 24 inches square and founded at a minimum depth of 18 inches below the lowest adjacent final grade.

Building Floor Slabs

- Building floor slabs should be a minimum of 5 inches thick and reinforced with a minimum of No. 4 bars spaced a maximum of 18 inches on center, each way. All floor slab reinforcement should be supported on concrete chairs or bricks to ensure the desired placement at mid-depth.

- Interior floor slabs, within moisture sensitive areas, should be underlain by a minimum 10-mil thick moisture/vapor barrier to help reduce the upward migration of moisture from the underlying earth materials. The moisture/vapor barrier used should meet the performance standards of an ASTM E 1745 Class A material, and be properly installed in accordance with Cal Green Standard 4.505.2. It is the responsibility of the contractor to ensure that the moisture/vapor barriers are free of openings, rips, or punctures prior to placing concrete. As an option for additional moisture reduction, higher strength concrete, such as a minimum 28-day compressive strength of 5,000 pounds per square inch (psi) may be used. Ultimately, the design of the moisture/vapor barrier system and recommendations for concrete placement and curing are the purview of the foundation engineer, taking into consideration the project requirements provided by the architect and owner.

- The subgrade earth materials below all floor slabs should be pre-watered to promote uniform curing of the concrete and minimize the development of shrinkage cracks, prior to placing concrete. The pre-watering should be verified by Earth Strata Geotechnical Services during construction.

Corrosivity

Corrosion is defined by the National Association of Corrosion Engineers (NACE) as "a deterioration of a substance or its properties because of a reaction with its environment." From a geotechnical viewpoint, the "substances" are the reinforced concrete foundations or buried metallic elements (not surrounded by concrete) and the "environment" is the prevailing earth materials in contact with them. Many factors can contribute to corrosivity, including the presence of chlorides, sulfates, salts, organic materials, different oxygen levels, poor drainage, different soil types, and moisture content. It is not considered practical or realistic to test for all of the factors which may contribute to corrosivity.

The potential for concrete exposure to chlorides is based upon the recognized Caltrans reference standard "Bridge Design Specifications", under Subsection 8.22.1 of that document, Caltrans has determined that "Corrosive water or soil contains more than 500 parts per million (ppm) of chlorides". Based on limited preliminary laboratory testing, the onsite earth materials have chloride contents *less* than 500 ppm. As such, specific requirements resulting from elevated chloride contents are not required.

Specific guidelines for concrete mix design are provided in 2022 CBC Section 1904.1 and ACI 318-19, Section 4.3 Tables 19.3.1.1 and 19.3.2.1 when the soluble sulfate content of earth materials exceeds 0.1 percent by weight. Based on limited preliminary laboratory testing, the onsite earth materials are classified in accordance with Tables 19.3.1.1 and 19.3.2.1 as having a *negligible* sulfate exposure condition. Therefore, structural concrete in contact with onsite earth materials should utilize Type I or II.

Based on our laboratory testing of resistivity, the onsite earth materials in contact with buried steel should be considered *very corrosive*. Additionally, pH values below 5.6 and above 9.1 are recognized as being

corrosive to many common metallic components. The pH values for the earth materials tested were *lower* than 9.1 and *higher* than 5.6.

The preliminary test results for corrosivity are based on limited samples, and the initiation of grading may blend various earth materials together. This blending or imported material could alter and increase the detrimental properties of the onsite earth materials. Accordingly, additional testing for chlorides and sulfates along with testing for pH and resistivity should be performed upon completion of grading. Laboratory test results are presented in Appendix C.

RETAINING WALLS

Active and At-Rest Earth Pressures

Foundations may be designed in accordance with the recommendations provided in the Tentative Foundation Design Recommendation section of this report. The following table provides the minimum recommended equivalent fluid pressures for design of retaining walls a maximum of 6 feet high. The active earth pressure should be used for design of unrestrained retaining walls, which are free to tilt slightly. The at-rest earth pressure should be used for design of retaining walls that are restrained at the top, such as basement walls, curved walls with no joints, or walls restrained at corners. For curved walls, active pressure may be used if tilting is acceptable and construction joints are provided at each angle point and at a minimum of 15 foot intervals along the curved segments.

MINIMUM STATIC EQUIVALENT FLUID PRESSURES (pcf)		
PRESSURE TYPE	BACKSLOPE CONDITION	
	LEVEL	2:1 (h:v)
Active Earth Pressure	40	63
At-Rest Earth Pressure	60	95

The retaining wall parameters provided do not account for hydrostatic pressure behind the retaining walls. Therefore, the subdrain system is a very important part of the design. All retaining walls should be designed to resist surcharge loads imposed by other nearby walls, structures, or vehicles should be added to the above earth pressures, if the additional loads are being applied within a 1.5:1 (h:v) plane projected up from the heel of the retaining wall footing. As a way of minimizing surcharge loads and the settlement potential of nearby buildings, the footings for the building can be deepened below the 1.5:1 (h:v)plane projected up from the heel of the retaining wall footing.

Upon request and under a separate scope of work, more detailed analyses can be performed to address equivalent fluid pressures with regard to stepped retaining walls, actual retaining wall heights, actual backfill inclinations, specific backfill materials, higher retaining walls requiring earthquake design motions, etc.

Subdrain System

We recommend a perforated pipe and gravel subdrain system be provided behind all proposed retaining walls to prevent the buildup of hydrostatic pressure behind the proposed retaining walls. The perforated pipe should consist of 4-inch minimum diameter Schedule 40 PVC or ABS SDR-35, placed with the perforations facing down. The pipe should be surrounded by 1 cubic foot per foot of ¾- or 1½ inch open graded gravel wrapped in filter fabric. The filter fabric should consist of Mirafi 140N or equivalent to prevent infiltration of fines and subsequent clogging of the subdrain system.

In lieu of a perforated pipe and gravel subdrain system, weep holes or open vertical masonry joints may be provided in the lowest row of block exposed to the air to prevent the buildup of hydrostatic pressure behind the proposed retaining walls. Weep holes should be a minimum of 3 inches in diameter and provided at intervals at least every 6 feet along the wall. Open vertical masonry joints should be provided at a minimum of 32 inch intervals. A continuous gravel fill, a minimum of 1 cubic foot per foot, should be placed behind the weep holes or open masonry joints. The gravel should be wrapped in filter fabric consisting of Mirafi 140N or equivalent.

The retaining walls should be adequately coated on the backfilled side of the walls with a proven waterproofing compound by an experienced professional to inhibit infiltration of moisture through the walls.

Temporary Excavations

All excavations should be made in accordance with Cal-OSHA requirements. Earth Strata Geotechnical Services is not responsible for job site safety.

Retaining Wall Backfill

Retaining wall backfill materials should be approved by the geotechnical engineer or his representative prior to placement as compacted fill. Retaining wall backfill should be placed in lifts no greater than 6 to 8 inches, watered or air dried as necessary to achieve near optimum moisture contents. All retaining wall backfill should be compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM D 1557. Retaining wall backfill should be capped with a paved surface drain.

CONCRETE FLATWORK

Thickness and Joint Spacing

Concrete sidewalks and patio type slabs should be at least 4 inches thick and provided with construction or expansion joints every 6 feet or less, to reduce the potential for excessive cracking. Concrete driveway slabs should be at least 5 inches thick and provided with construction or expansion joints every 10 feet or less.

Subgrade Preparation

In order to reduce the potential for unsightly cracking, subgrade earth materials underlying concrete flatwork should be compacted at near optimum moisture to a minimum of 90 percent of the maximum dry density determined by ASTM D 1557 and then moistened to optimum or slightly above optimum moisture content. This moisture should extend to a depth of 12 inches below subgrade and be maintained prior to placement of concrete. Pre-watering of the earth materials prior to placing concrete will promote uniform curing of the concrete and minimize the development of shrinkage cracks. The project geotechnical engineer or his representative should verify the density and moisture content of the earth materials and the depth of moisture penetration prior to placing concrete.

Cracking within concrete flatwork is often a result of factors such as the use of too high a water to cement ratio and/or inadequate steps taken to prevent moisture loss during the curing of the concrete. Concrete distress can be reduced by proper concrete mix design and proper placement and curing of the concrete. Minor cracking within concrete flatwork is normal and should be expected.

PRELIMINARY ASPHALTIC CONCRETE PAVEMENT DESIGN

Based on geotechnical knowledge of similar earth materials an assumed R-value of 30 may be used for preliminary pavement design. The following table includes our minimum recommended asphaltic concrete pavement sections calculated in accordance with the State of California design procedures using assumed Traffic Indices. Final pavement design should be based on sampling and testing of post grading conditions. Alternative pavement sections and calculation sheets have been provided within the appendices of this report.

PRELIMINARY ASPHALTIC CONCRETE PAVEMENT DESIGN			
PARAMETERS	**AUTO PARKING**	**DRIVE AISLES**	**ENTRANCES/TRUCK DRIVES**
Assumed Traffic Index	5.0	6.0	7.0
Design R-Value	30	30	30
AC Thickness (inches)	3.0	4.0	4.0
AB Thickness (inches)	5.5	6.0	9.6

Notes: AC – Asphaltic Concrete
AB – Aggregate Base

The subgrade earth materials immediately below the aggregate base (base) should be compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D 1557 to a minimum depth of 12 inches. Base materials should be compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D 1557.

Base materials should consist of Class 2 aggregate base conforming to Section 26-1.02B of the State of California Standard Specifications or crushed aggregate base conforming to Section 200-2 of the Standard Specifications for Public Works Construction (Greenbook). Base materials should be compacted at or slightly below optimum moisture content. Asphaltic concrete materials and construction operations should conform to Section 203 of the Greenbook.

GRADING PLAN REVIEW AND CONSTRUCTION SERVICES

This report has been prepared for the exclusive use of **Mike Naggar** and their authorized representative. It likely does not contain sufficient information for other parties or other uses. Earth Strata Geotechnical Services should be engaged to review the final design plans and specifications prior to construction. This is to verify that the recommendations contained in this report have been properly incorporated into the project plans and specifications. Should Earth Strata Geotechnical Services not be accorded the opportunity to review the project plans and specifications, we are not responsibility for misinterpretation of our recommendations.

We recommend that Earth Strata Geotechnical Services be retained to provide geologic and geotechnical engineering services during grading and foundation excavation phases of the work. In order to allow for design changes in the event that the subsurface conditions differ from those anticipated prior to construction.

Earth Strata Geotechnical Services should review any changes in the project and modify and approve in writing the conclusions and recommendations of this report. This report and the drawings contained within are intended for design input purposes only and are not intended to act as construction drawings or specifications. In the event that conditions encountered during grading or construction operations appear to be different than those indicated in this report, this office should be notified immediately, as revisions may be required.

REPORT LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists, practicing at the time and location this report was prepared. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

Earth materials vary in type, strength, and other geotechnical properties between points of observation and exploration. Groundwater and moisture conditions can also vary due to natural processes or the works of man on this or adjacent properties. As a result, we do not and cannot have complete knowledge of the subsurface conditions beneath the subject property. No practical study can completely eliminate uncertainty with regard to the anticipated geotechnical conditions in connection with a subject property. The conclusions and recommendations within this report are based upon the findings at the points of observation and are subject to confirmation by Earth Strata Geotechnical Services based on the conditions revealed during grading and construction.

This report was prepared with the understanding that it is the responsibility of the owner or their representative, to ensure that the conclusions and recommendations contained herein are brought to the attention of the other project consultants and are incorporated into the plans and specifications. The owners' contractor should properly implement the conclusions and recommendations during grading and construction, and notify the owner if they consider any of the recommendations presented herein to be unsafe or unsuitable.

APPENDIX A

REFERENCES

APPENDIX A

References

California Building Standards Commission, 2022, *2022 California Building Code, California Code of Regulations Title 24, Part 2, Volume 2 of 2,* Based on 2018 International Building Code.

California Corrosion Guidelines

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APPENDIX B

EXPLORATORY LOGS

Geotechnical Boring Log B-1

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0		0-5				**Quaternary Alluvium (Qa)**
					SM	Silty SAND, light brown, dry, medium dense, fine to coarse sand
	23	2.5	120.1	2.2		
5	54/12	5	117.9	3.6		
	64	7.5	127.6	6.1		
10						Practical Refusal at 9 feet
						No Groundwater
15						
20						
25						
30						

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Geotechnical Boring Log B-2

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						**Quaternary Alluvium (Qa)**
					SM	Silty SAND, light brown, dry, very dense, fine to coarse sand
	54	2.5	120.2	5.5		
5	86/10"	5	127.3	4.9		
						Practical Refusal at 6.5 feet
						No Groundwater
10						
15						
20						
25						
30						

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Geotechnical Boring Log B-3

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						**Quaternary Alluvium (Qa)**
					SM	Silty SAND, brown, slightly moist, dense, fine to coarse sand
	46	2.5	126.8	3.4		
5	77/11"	5	122.5	3.5		
						Practical Refusal at 6.5 feet
						No Groundwater
10						
15						
20						
25						
30						

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Geotechnical Boring Log B-4

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0		0-5				**Quaternary Alluvium (Qa)**
					SM	Silty SAND, brown, slightly moist, dense, fine to coarse sand
	53	2.5	119.3	5.9		
5	82	5	129.9	4.1		
						Practical Refusal at 6.5 feet
						No Groundwater
10						
15						
20						
25						
30						

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Geotechnical Boring Log B-5

Date: 7/25/2023	Project Name: Perris Gateway — Page: 1 of 1
Project Number: 235075-10A	Logged By: HR
Drilling Company: Drilling It	Type of Rig: B-61
Drive Weight (lbs): 140	Drop (in): 30 — Hole Diameter (in): 8
Top of Hole Elevation (ft): See Map	Hole Location: See Geotechnical Map

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						**Quaternary Alluvium (Qa)**
					SM	Silty SAND, brown, slightly moist, dense, fine to coarse sand
	82/11"	2.5	124.3	5.8		
5	76	5	124.8	3.5		
						Practical Refusal at 6.5 feet
						No Groundwater
10						
15						
20						
25						
30						

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Geotechnical Boring Log B-6

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						**Quaternary Alluvium (Qa)**
					SM	Silty SAND, brown, slightly moist, dense, fine to coarse sand
	47	2.5	135.7	3.1		
5	79	5	121.7	3.3		
	72/12"	7.5	120.3	3.3		
10						Practical Refusal at 8.5 feet
						No Groundwater
15						
20						
25						
30						

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Geotechnical Boring Log B-7

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						**Quaternary Alluvium (Qa)**
					SM	Silty SAND, brown, slightly moist, dense, fine to coarse sand
	38	2.5	123.2	4.3		
5	85/10"	5	122.3	5.7		
	77	7.5	116.4	6.1		
10						Practical Refusal at 8.5 feet
						No Groundwater
15						
20						
25						
30						

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Geotechnical Boring Log B-7

Date: 7/25/2023	**Project Name: Perris Gateway** **Page: 1 of 1**
Project Number: 235075-10A	**Logged By: HR**
Drilling Company: Drilling It	**Type of Rig: B-61**
Drive Weight (lbs): 140	**Drop (in): 30** **Hole Diameter (in): 8**
Top of Hole Elevation (ft): See Map	**Hole Location: See Geotechnical Map**

Depth (ft)	Blow Count Per Foot	Sample Depth (ft)	Dry Density (pcf)	Moisture (%)	Classification Symbol	MATERIAL DESCRIPTION
0						**Quaternary Alluvium (Qa)**
					SM	Silty SAND, brown, slightly moist, dense, fine to coarse sand
	81	2.5	121.7	5.4		
5	79	5	124.6	5.6		
						Practical Refusal at 6.5 feet
						No Groundwater
10						
15						
20						
25						
30						

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APPENDIX C

LABORATORY PROCEDURES AND TEST RESULTS

APPENDIX C

Laboratory Procedures and Test Results

Laboratory testing provided quantitative and qualitative data involving the relevant engineering properties of the representative earth materials selected for testing. The representative samples were tested in general accordance with American Society for Testing and Materials (ASTM) procedures and/or California Test Methods (CTM).

Soil Classification: Earth materials encountered during exploration were classified and logged in general accordance with the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) of ASTM D 2488. Upon completion of laboratory testing, exploratory logs and sample descriptions were reconciled to reflect laboratory test results with regard to ASTM D 2487.

Moisture and Density Tests: For select samples moisture content was determined using the guidelines of ASTM D 2216 and dry density determinations were made using the guidelines of ASTM D 2937. These tests were performed on relatively undisturbed samples and the test results are presented on the exploratory logs.

Maximum Density Tests: The maximum dry density and optimum moisture content of representative samples were determined using the guidelines of ASTM D 1557. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE CONTENT (%)
B-4 @ 0-5 feet	Silty SAND	135.0	8.0

Expansion Index: The expansion potential of representative samples was evaluated using the guidelines of ASTM D 4829. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	EXPANSION INDEX	EXPANSION POTENTIAL
B-1 @ 0-5 feet	Silty SAND	0	Very Low
B-4 @ 0-5 feet	Silty SAND	28	Low

Minimum Resistivity and pH Tests: Minimum resistivity and pH Tests of select samples were performed using the guidelines of CTM 643. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	pH	MINIMUM RESISTIVITY (ohm-cm)
B-1 @ 0-5 feet	Silty SAND	7.58	1100
B-4 @ 0-5 feet	Silty SAND	7.41	610

Soluble Sulfate: The soluble sulfate content of select samples was determined using the guidelines of CTM 417. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	SULFATE CONTENT (% by weight)	SULFATE EXPOSURE
B-1 @ 0-5 feet	Silty SAND	0.032	Negligible
B-4 @ 0-5 feet	Silty SAND	0.051	Negligible

Chloride Content: Chloride content of select samples was determined using the guidelines of CTM 422. The test results are presented in the table below.

SAMPLE LOCATION	MATERIAL DESCRIPTION	CHLORIDE CONTENT (ppm)
B-1 @ 0-5 feet	Silty SAND	50
B-4 @ 0-5 feet	Silty SAND	140

APPENDIX D

SEISMICITY

U.S. Geological Survey - Earthquake Hazards Program

2008 National Seismic Hazard Maps - Source Parameters

New Search

Distance in Kilometers	Name	State	Pref Slip Rate (mm/yr)	Dip (degrees)	Dip Dir	Slip Sense	Rupture Top (km)	Rupture Bottom (km)	Length (km)
13.69	San Jacinto;A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	178
13.69	San Jacinto;A	CA	9	90	V	strike slip	0	17	71
13.69	San Jacinto;A+C	CA	n/a	90	V	strike slip	0	17	118
13.69	San Jacinto;A+CC	CA	n/a	90	V	strike slip	0	16	118
13.69	San Jacinto;A+CC+B	CA	n/a	90	V	strike slip	0.1	15	152
14.65	San Jacinto;SBV+SJV+A	CA	n/a	90	V	strike slip	0	16	134
14.65	San Jacinto;SJV+A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	196
14.65	San Jacinto;SJV+A+CC+B	CA	n/a	90	V	strike slip	0.1	15	170
14.65	San Jacinto;SJV+A+CC	CA	n/a	90	V	strike slip	0	16	136
14.65	San Jacinto;SJV+A+C	CA	n/a	90	V	strike slip	0	17	136
14.65	San Jacinto;SJV+A	CA	n/a	90	V	strike slip	0	17	89
14.65	San Jacinto;SJV	CA	18	90	V	strike slip	0	16	43
14.65	San Jacinto;SBV+SJV+A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	241
14.65	San Jacinto;SBV+SJV+A+CC+B	CA	n/a	90	V	strike slip	0.1	15	215
14.65	San Jacinto;SBV+SJV+A+CC	CA	n/a	90	V	strike slip	0	16	181
14.65	San Jacinto;SBV+SJV+A+C	CA	n/a	90	V	strike slip	0	17	181

14.65	San Jacinto;SBV+SJV	CA	n/a	90	V	strike slip	0	16	88
19.09	San Jacinto;SBV	CA	6	90	V	strike slip	0	16	45
21.22	Elsinore;GI	CA	5	90	V	strike slip	0	13	37
21.22	Elsinore;W+GI+T	CA	n/a	84	NE	strike slip	0	14	124
21.22	Elsinore;W+GI	CA	n/a	81	NE	strike slip	0	14	83
21.22	Elsinore;GI+T+J+CM	CA	n/a	86	NE	strike slip	0	16	195
21.22	Elsinore;W+GI+T+J	CA	n/a	84	NE	strike slip	0	16	199
21.22	Elsinore;W+GI+T+J+CM	CA	n/a	84	NE	strike slip	0	16	241
21.22	Elsinore;GI+T	CA	5	90	V	strike slip	0	14	78
21.22	Elsinore;GI+T+J	CA	n/a	86	NE	strike slip	0	17	153
23.69	Elsinore;T+J	CA	n/a	86	NE	strike slip	0	17	127
23.69	Elsinore;T	CA	5	90	V	strike slip	0	14	52
23.69	Elsinore;T+J+CM	CA	n/a	85	NE	strike slip	0	16	169
29.69	Chino, alt 2	CA	1	65	SW	strike slip	0	14	29
31.80	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	384
31.80	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	512
31.80	S. San Andreas;SSB+BG	CA	n/a	71		strike slip	0	13	101
31.80	S. San Andreas;NSB+SSB+BG+CO	CA	n/a	79		strike slip	0.2	12	206
31.80	S. San Andreas;CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	322
31.80	S. San Andreas;CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	85		strike slip	0	14	380

31.80	S. San Andreas;CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	449
31.80	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	86		strike slip	0	14	442
31.80	S. San Andreas;NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	13	213
31.80	S. San Andreas;NM+SM+NSB+SSB+BG	CA	n/a	83		strike slip	0	14	271
31.80	S. San Andreas;NM+SM+NSB+SSB+BG+CO	CA	n/a	84		strike slip	0.1	13	340
31.80	S. San Andreas;NSB+SSB	CA	n/a	90	V	strike slip	0	13	79
31.80	S. San Andreas;NSB+SSB+BG	CA	n/a	75		strike slip	0	14	136
31.80	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0.1	13	421
31.80	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	86		strike slip	0.1	13	479
31.80	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	548
31.80	S. San Andreas;SM+NSB+SSB	CA	n/a	90	V	strike slip	0	13	176
31.80	S. San Andreas;SM+NSB+SSB+BG	CA	n/a	81		strike slip	0	13	234
31.80	S. San Andreas;SM+NSB+SSB+BG+CO	CA	n/a	83		strike slip	0.1	13	303
31.80	S. San Andreas;SSB	CA	16	90	V	strike slip	0	13	43
31.80	S. San Andreas;SSB+BG+CO	CA	n/a	77		strike slip	0.2	12	170
31.80	S. San Andreas;BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	263
31.80	S. San Andreas;BB+NM+SM+NSB+SSB+BG	CA	n/a	84		strike slip	0	14	321
31.80	S. San Andreas;BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	85		strike slip	0.1	13	390
31.91	Elsinore;W	CA	2.5	75	NE	strike slip	0	14	46
32.51	Chino, alt 1	CA	1	50	SW	strike slip	0	9	24

33.90	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0.1	13	377
33.90	S. San Andreas;SM+NSB	CA	n/a	90	V	strike slip	0	13	133
33.90	S. San Andreas;NSB	CA	22	90	V	strike slip	0	13	35
33.90	S. San Andreas;CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	279
33.90	S. San Andreas;CH+CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	341
33.90	S. San Andreas;NM+SM+NSB	CA	n/a	90	V	strike slip	0	13	170
33.90	S. San Andreas;BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	220
41.19	Cucamonga	CA	5	45	N	thrust	0	8	28
42.82	S. San Andreas;BG	CA	n/a	58		strike slip	0	13	56
42.82	S. San Andreas;BG+CO	CA	n/a	72		strike slip	0.3	12	125
47.64	Cleghorn	CA	3	90	V	strike slip	0	16	25
48.29	San Joaquin Hills	CA	0.5	23	SW	thrust	2	13	27
50.74	San Jose	CA	0.5	74	NW	strike slip	0	15	20
52.39	North Frontal (West)	CA	1	49	S	reverse	0	16	50
53.85	Pinto Mtn	CA	2.5	90	V	strike slip	0	16	74
55.10	Sierra Madre Connected	CA	2	51		reverse	0	14	76
55.10	Sierra Madre	CA	2	53	N	reverse	0	14	57
57.80	Puente Hills (Coyote Hills)	CA	0.7	26	N	thrust	2.8	15	17
59.28	S. San Andreas;BB+NM+SM	CA	n/a	90	V	strike slip	0	14	184
59.28	S. San Andreas;NM+SM	CA	n/a	90	V	strike slip	0	14	134
59.28	S. San Andreas;CH+CC+BB+NM+SM	CA	n/a	90	V	strike slip	0	14	306
59.28	S. San Andreas;SM	CA	29	90	V	strike slip	0	13	98

59.28	S. San Andreas;CC+BB+NM+SM	CA	n/a	90	V	strike slip	0	14	243
59.28	S. San Andreas;PK+CH+CC+BB+NM+SM	CA	n/a	90	V	strike slip	0.1	13	342
60.12	Elsinore;J+CM	CA	3	84	NE	strike slip	0	17	118
60.12	Elsinore;J	CA	3	84	NE	strike slip	0	19	75
63.21	Newport Inglewood Connected alt 2	CA	1.3	90	V	strike slip	0	11	208
63.21	Newport Inglewood Connected alt 1	CA	1.3	89		strike slip	0	11	208
63.21	Newport-Inglewood (Offshore)	CA	1.5	90	V	strike slip	0	10	66
66.43	Helendale-So Lockhart	CA	0.6	90	V	strike slip	0	13	114
68.34	North Frontal (East)	CA	0.5	41	S	thrust	0	16	27
68.79	Newport-Inglewood, alt 1	CA	1	88		strike slip	0	15	65
70.64	Clamshell-Sawpit	CA	0.5	50	NW	reverse	0	14	16
72.05	Puente Hills (Santa Fe Springs)	CA	0.7	29	N	thrust	2.8	15	11
77.27	Raymond	CA	1.5	79	N	strike slip	0	16	22
77.40	San Jacinto;CC+B	CA	n/a	90	V	strike slip	0.2	14	77
77.40	San Jacinto;CC	CA	4	90	V	strike slip	0	16	43
77.40	San Jacinto;CC+B+SM	CA	n/a	90	V	strike slip	0.2	14	103
78.55	San Jacinto;C	CA	14	90	V	strike slip	0	17	47
78.93	Lenwood-Lockhart-Old Woman Springs	CA	0.9	90	V	strike slip	0	13	145
79.75	Burnt Mtn	CA	0.6	67	W	strike slip	0	16	21
81.81	Rose Canyon	CA	1.5	90	V	strike slip	0	8	70
82.55	Puente Hills (LA)	CA	0.7	27	N	thrust	2.1	15	22
82.73	Elysian Park (Upper)	CA	1.3	50	NE	reverse	3	15	20

84.20	Landers	CA	0.6	90	V	strike slip	0	15	95
84.46	Eureka Peak	CA	0.6	90	V	strike slip	0	15	19
87.24	Palos Verdes Connected	CA	3	90	V	strike slip	0	10	285
87.24	Palos Verdes	CA	3	90	V	strike slip	0	14	99
88.40	Coronado Bank	CA	3	90	V	strike slip	0	9	186
89.08	Johnson Valley (No)	CA	0.6	90	V	strike slip	0	16	35
89.68	Verdugo	CA	0.5	55	NE	reverse	0	15	29
92.76	S. San Andreas;CO	CA	20	90	V	strike slip	0.6	11	69
95.88	Earthquake Valley	CA	2	90	V	strike slip	0	19	20
95.91	Hollywood	CA	1	70	N	strike slip	0	17	17
99.13	So Emerson-Copper Mtn	CA	0.6	90	V	strike slip	0	14	54

ARS Online V3.1.0

Using the tool: Specify latitude and longitude in decimal degrees in the input boxes below. Specify the time-averaged shear-wave velocity in the upper 30m (Vs30) in the input box. After submitting the data, the USGS 2014 hazard data for a 975-year return period will be reported along with adjustment factors required by Caltrans Seismic Design Criteria (SDC) V2.0.

Latitude: 33.845142 **Longitude:** -117.246680 **Vs30 (m/s):** 270 Submit

Caltrans Design Spectrum (5% damping)

Period(s)	Sa_{2014}(g)	$Basin_{2014}$	Near Fault Amp	Design Sa_{2014}(g)
PGA	0.57	1	1	0.57
0.10	1.02	1	1	1.02
0.20	1.36	1	1	1.36
0.30	1.47	1	1	1.47
0.50	1.33	1	1	1.33
0.75	1.05	1	1.04	1.09
1.0	0.85	1	1.08	0.92
2.0	0.45	1	1.08	0.49
3.0	0.3	1	1.08	0.33
4.0	0.22	1	1.08	0.24
5.0	0.17	1	1.08	0.18

Copy table

Deaggregation (based on 2014 hazard)

Mean moment magnitude (for PGA)	6.92
Mean site-source distance, km (for Sa at 1s)	20.9

Option: recalculate Near Fault amplification with user specified distance

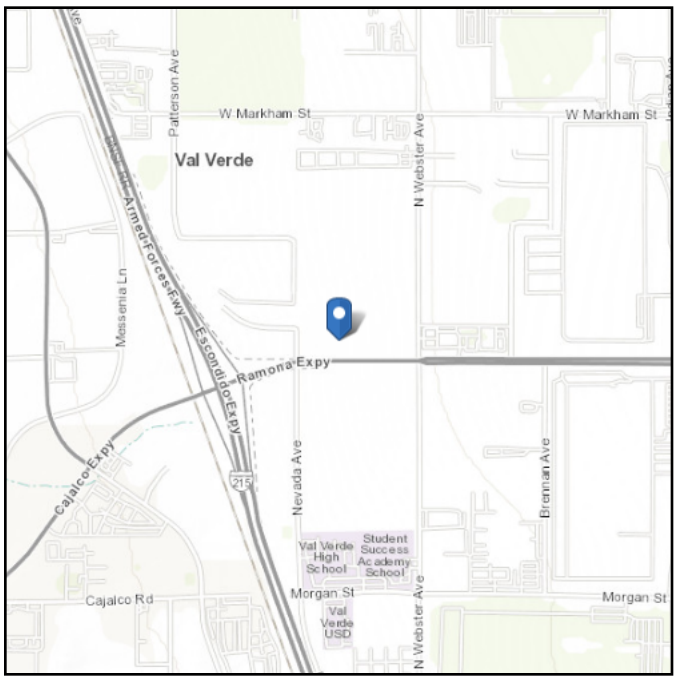
Site-source distance, km: 20.9 Update

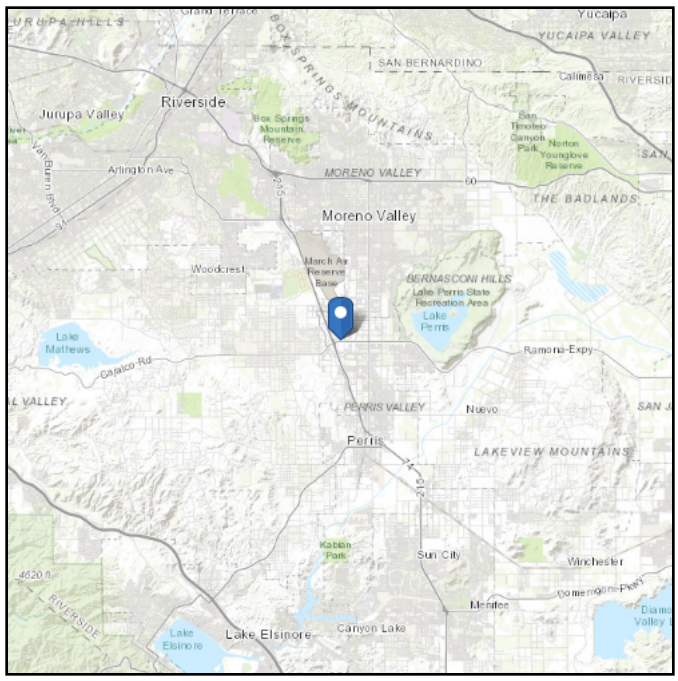
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-22
Risk Category: II
Soil Class: Default

Latitude: 33.845142
Longitude: -117.24668
Elevation: 1487.7025449522805 ft (NAVD 88)





Seismic

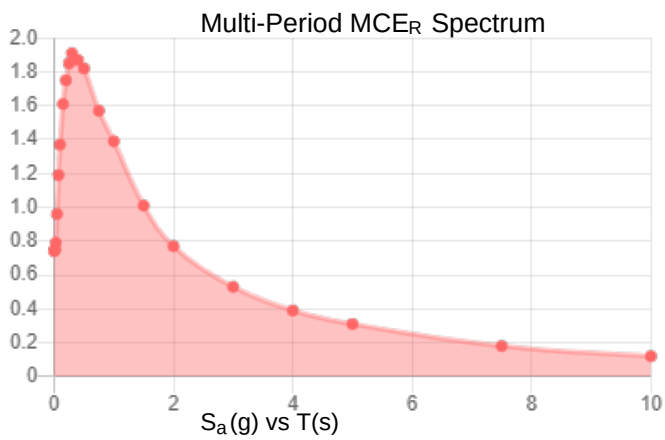
Default

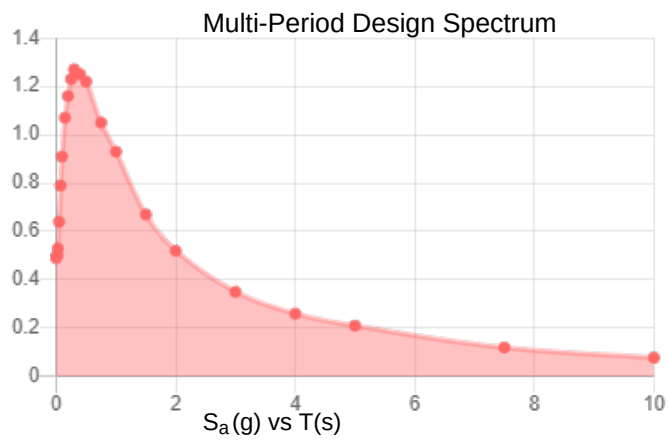
Site Soil Class:

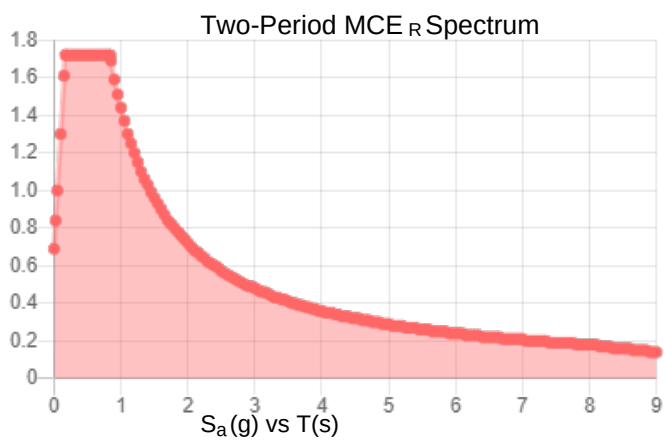
Results:

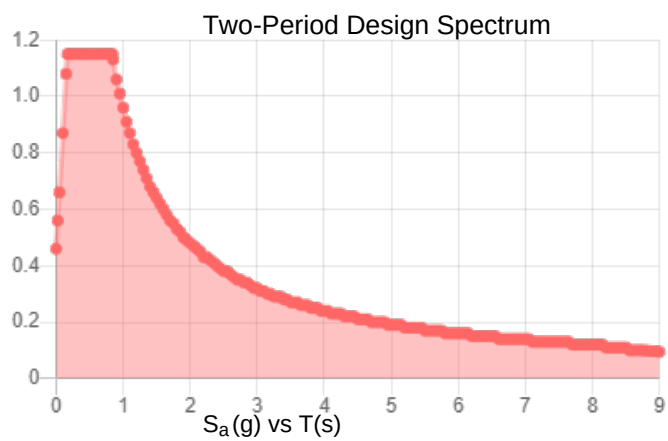
PGA_M :	0.6	T_L :	8
S_{MS} :	1.72	S_S :	1.5
S_{M1} :	1.44	S_1 :	0.56
S_{DS} :	1.15	V_{S30} :	260
S_{D1} :	0.96		

Seismic Design Category: D









MCE_R Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Design Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Data Accessed: **Tue Aug 01 2023**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-22 and ASCE/SEI 7-22 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-22 Ch. 21 are available from USGS.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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USGS Earthquakes

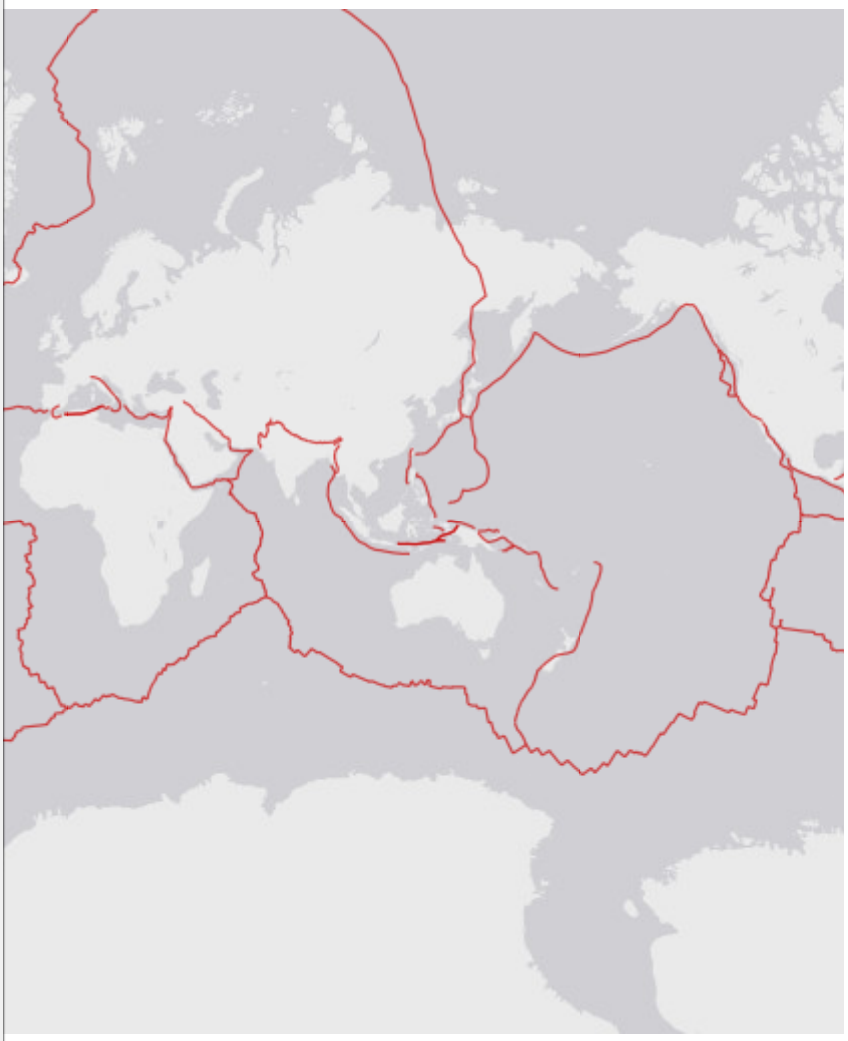
Earthquakes loading...

Only List Earthquakes Shown on Map

Format: Magnitude

Sort: Newest First

6.3	The 1992 Big Bear Earthquak...	1992-06-28 15:05:30 (UTC) 3.6 km
7.3	The 1992 Landers Earthquak...	1992-06-28 11:57:34 (UTC) -0.1 km
6.1	The 1992 Joshua Tree Earth...	1992-04-23 04:50:23 (UTC) 11.6 km
6.0	6km SSW of Morongo Valley, ...	1986-07-08 09:20:44 (UTC) 9.5 km
6.0	16km E of Desert Hot Spring...	1948-12-04 23:43:16 (UTC) 6.0 km
6.4	Long Beach, California Earth...	1933-03-11 01:54:09 (UTC) 6.0 km
6.2	3 km SE of San Bernardino, C...	1923-07-23 07:30:23 (UTC) 5.0 km
6.7	1 km N of Hemet, California	1918-04-21 22:32:30 (UTC) 10.0 km
6.7	Near San Jacinto, California	1899-12-25 12:25:00 (UTC)
6.4	Cajon Pass area, n	1899-07-22 20:32:00 (UTC)



89.362°N : 77.344°E

Leaflet | Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user commu...

APPENDIX E

ASPHALTIC PAVEMENT CALCULATIONS

PAVING DESIGN

Earth - Strata, Inc.
Geotechnical, Environmental and Materials Testing Consultants
BETTER PEOPLE • BETTER SERVICE • BETTER RESULTS

JN: **235075-10A** CONSULT: **SMP**
PROJECT: **Perris Gateway**

CALCULATION SHEET # **Parking**

CALTRANS METHOD FOR DESIGN OF FLEXIBLE PAVEMENT

Input "R" value or "CBR" of native soil	30	
Type of Index Property - "R" value or "CBR" (C or R)	R	R Value
R Value used for Caltrans Method	30	
Input Traffic Index (TI)	5	
Calculated Total Gravel Equivalent (GE)	1.12	feet
Calculated Total Gravel Equivalent (GE)	13.44	inches
Calculated Gravel Factor (Gf) for A/C paving	2.53	
Gravel Factor for Base Course (Gf)	1.1	

Pavement sections provided below are considered equal; but, do not reflect reviewing agency minimums.

Gravel Equivalent			INCHES		FEET	
GE (feet)	GE (inches)	Delta (inches)	A/C Section Thickness (inches)	Minimum Base (inches)	A/C Section Thickness (feet)	Minimum Base (feet)
0.63	7.60	5.84	3.0	5.5	0.25	0.46
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				
0.00	0.00	13.44				

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JN: **235075-10A** CONSULT: **SMP**
PROJECT: **Perris Gateway**

CALCULATION SHEET # **Drive Aisles**

CALTRANS METHOD FOR DESIGN OF FLEXIBLE PAVEMENT

Input "R" value or "CBR" of native soil	30	
Type of Index Property - "R" value or "CBR" (C or R)	R	R Value
R Value used for Caltrans Method	30	
Input Traffic Index (TI)	6	
Calculated Total Gravel Equivalent (GE)	1.344	feet
Calculated Total Gravel Equivalent (GE)	16.128	inches
Calculated Gravel Factor (Gf) for A/C paving	2.31	
Gravel Factor for Base Course (Gf)	1.1	

Pavement sections provided below are considered equal; but, do not reflect reviewing agency minimums.

Gravel Equivalent			INCHES		FEET	
GE (feet)	GE (inches)	Delta (inches)	A/C Section Thickness (inches)	Minimum Base (inches)	A/C Section Thickness (feet)	Minimum Base (feet)
0.58	6.94	9.19	3.0	8.4	0.25	0.70
0.67	8.10	8.03	3.5	7.2	0.29	0.60
0.69	8.33	7.80	3.6	7.2	0.30	0.60
0.77	9.26	6.87	4.0	6.0	0.33	0.50
0.00	0.00	16.13				
0.00	0.00	16.13				
0.00	0.00	16.13				
0.00	0.00	16.13				
0.00	0.00	16.13				
0.00	0.00	16.13				
0.00	0.00	16.13				

PAVING DESIGN

Earth - Strata, Inc.
Geotechnical, Environmental and Materials Testing Consultants
BETTER PEOPLE • BETTER SERVICE • BETTER RESULTS

JN: **235075-10A** CONSULT: **SMP**
PROJECT: **Perris Gateway**

CALCULATION SHEET # **Entrances/Truck Drives**

CALTRANS METHOD FOR DESIGN OF FLEXIBLE PAVEMENT

Input "R" value or "CBR" of native soil	30	
Type of Index Property - "R" value or "CBR" (C or R)	R	R Value
R Value used for Caltrans Method	30	
Input Traffic Index (TI)	7	
Calculated Total Gravel Equivalent (GE)	1.568	feet
Calculated Total Gravel Equivalent (GE)	18.816	inches
Calculated Gravel Factor (Gf) for A/C paving	2.14	
Gravel Factor for Base Course (Gf)	1.1	

Pavement sections provided below are considered equal; but, do not reflect reviewing agency minimums.

Gravel Equivalent			INCHES		FEET	
GE (feet)	GE (inches)	Delta (inches)	A/C Section Thickness (inches)	Minimum Base (inches)	A/C Section Thickness (feet)	Minimum Base (feet)
0.54	6.43	12.39	3.0	11.4	0.25	0.95
0.62	7.50	11.32	3.5	10.2	0.29	0.85
0.64	7.71	11.10	3.6	10.2	0.30	0.85
0.71	8.57	10.25	4.0	9.6	0.33	0.80
0.00	0.00	18.82				
0.00	0.00	18.82				
0.00	0.00	18.82				
0.00	0.00	18.82				
0.00	0.00	18.82				
0.00	0.00	18.82				
0.00	0.00	18.82				

APPENDIX E

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

EARTH-STRATA

General Earthwork and Grading Specifications

General

Intent: These General Earthwork and Grading Specifications are intended to be the minimum requirements for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These General Earthwork and Grading Specifications should be considered a part of the recommendations contained in the geotechnical report(s) and if they are in conflict with the geotechnical report(s), the specific recommendations in the geotechnical report shall supersede these more general specifications. Observations made during earthwork operations by the project Geotechnical Consultant may result in new or revised recommendations that may supersede these specifications and/or the recommendations in the geotechnical report(s).

The Geotechnical Consultant of Record: The Owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant), prior to commencement of grading or construction. The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading or construction.

Prior to commencement of grading or construction, the Owner shall coordinate with the Geotechnical Consultant, and Earthwork Contractor (Contractor) to schedule sufficient personnel for the appropriate level of observation, mapping, and compaction testing.

During earthwork and grading operations, the Geotechnical Consultant shall observe, map, and document the subsurface conditions to confirm assumptions made during the geotechnical design phase of the project. Should the observed conditions differ significantly from the interpretive assumptions made during the design phase, the Geotechnical Consultant shall recommend appropriate changes to accommodate the observed conditions, and notify the reviewing agency where required.

The Geotechnical Consultant shall observe the moisture conditioning and processing of the excavations and fill materials. The Geotechnical Consultant should perform periodic relative density testing of fill materials to verify that the attained level of compaction is being accomplished as specified.

The Earthwork Contractor: The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of earth materials to receive compacted fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall be provided with the approved grading plans and geotechnical report(s) for his review and acceptance of responsibilities, prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the approved grading plans and geotechnical report(s). Prior to commencement of grading, the Contractor shall prepare and submit to the Owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "equipment" of work and the estimated quantities of daily earthwork contemplated for the site. The Contractor shall inform the Owner and the Geotechnical Consultant of work schedule changes and revisions to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. No assumptions shall be made by the Contractor with regard to whether the Geotechnical Consultant is aware of all grading operations.

It is the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the earthwork operations in accordance with the applicable grading codes and agency ordinances, these specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). At the sole discretion of the Geotechnical Consultant, any unsatisfactory conditions, such as unsuitable earth materials, improper moisture conditioning, inadequate compaction, insufficient buttress keyway size, adverse weather conditions, etc., resulting in a quality of work less than required in the approved grading plans and geotechnical report(s), the Geotechnical Consultant shall reject the work and may recommend to the Owner that grading be stopped until conditions are corrected.

Preparation of Areas for Compacted Fill

Clearing and Grubbing: Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed in a method acceptable to the Owner, Geotechnical Consultant, and governing agencies.

The Geotechnical Consultant shall evaluate the extent of these removals on a site by site basis. Earth materials to be placed as compacted fill shall not contain more than 1 percent organic materials (by volume). No compacted fill lift shall contain more than 10 percent organic matter.

Should potentially hazardous materials be encountered, the Contractor shall stop work in the affected area, and a hazardous materials specialist shall immediately be consulted to evaluate the potentially hazardous materials, prior to continuing to work in that area.

It is our understanding that the State of California defines most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) as hazardous waste. As such, indiscriminate dumping or spillage of these fluids may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall be prohibited. The contractor is responsible for all hazardous waste related to his operations. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Owner should contract the services of a qualified environmental assessor.

Processing: Exposed earth materials that have been observed to be satisfactory for support of compacted fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Exposed earth materials that are not observed to be satisfactory shall be removed or alternative recommendations may be provided by the Geotechnical Consultant. Scarification shall continue until the exposed earth materials are broken down and free of oversize material and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction. The earth materials should be moistened or air dried to near optimum moisture content, prior to compaction.

Overexcavation: The Cut Lot Typical Detail and Cut/Fill Transition Lot Typical Detail, included herein provides a graphic illustration that depicts typical overexcavation recommendations made in the approved geotechnical report(s) and/or grading plan(s).

Keyways and Benching: Where fills are to be placed on slopes steeper than 5:1 (horizontal to vertical units), the ground shall be thoroughly benched as compacted fill is placed. Please see the three Keyway and Benching Typical Details with subtitles Cut Over Fill Slope, Fill Over Cut Slope, and Fill Slope for a graphic illustration. The lowest bench or smallest keyway shall be a minimum of 10 feet wide (or ½ the proposed slope height) and at least 2 feet into competent earth materials as advised by the Geotechnical Consultant. Typical benches shall be excavated a minimum height of 4 feet into competent earth materials or as recommended by the Geotechnical Consultant. Fill placed on slopes steeper than 5:1 should be thoroughly benched or otherwise excavated to provide a flat subgrade for the compacted fill.

Evaluation/Acceptance of Bottom Excavations: All areas to receive compacted fill (bottom excavations), including removal excavations, processed areas, keyways, and benching, shall be observed, mapped, general elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive compacted fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to placing compacted fill. A licensed surveyor shall provide the survey control for determining elevations of bottom excavations, processed areas, keyways, and

benching. The Geotechnical Consultant is not responsible for erroneously located, fills, subdrain systems, or excavations.

Fill Materials

General: Earth material to be used as compacted fill should to a large extent be free of organic matter and other deleterious substances as evaluated and accepted by the Geotechnical Consultant.

Oversize: Oversize material is rock that does not break down into smaller pieces and has a maximum diameter greater than 12 inches. Oversize rock shall not be included within compacted fill unless specific methods and guidelines acceptable to the Geotechnical Consultant are followed. For examples of methods and guidelines of oversize rock placement see the enclosed Oversize Rock Disposal Detail. The inclusion of oversize materials in the compacted fill shall only be acceptable if the oversize material is completely surrounded by compacted fill or thoroughly jetted granular materials. No oversize material shall be placed within 10 vertical feet of finish grade or within 2 feet of proposed utilities or underground improvements.

Import: Should imported earth materials be required, the proposed import materials shall meet the requirements of the Geotechnical Consultant. Well graded, very low expansion potential earth materials free of organic matter and other deleterious substances are usually sought after as import materials. However, it is generally in the Owners best interest that potential import earth materials are provided to the Geotechnical Consultant to determine their suitability for the intended purpose. At least 48 hours should be allotted for the appropriate laboratory testing to be performed, prior to starting the import operations.

Fill Placement and Compaction Procedures

Fill Layers: Fill materials shall be placed in areas prepared to receive fill in nearly horizontal layers not exceeding 8 inches in loose thickness. Thicker layers may be accepted by the Geotechnical Consultant, provided field density testing indicates that the grading procedures can adequately compact the thicker layers. Each layer of fill shall be spread evenly and thoroughly mixed to obtain uniformity within the earth materials and consistent moisture throughout the fill.

Moisture Conditioning of Fill: Earth materials to be placed as compacted fill shall be watered, dried, blended, and/or mixed, as needed to obtain relatively uniform moisture contents that are at or slightly above optimum. The maximum density and optimum moisture content tests should be performed in accordance with the American Society of Testing and Materials (ASTM test method D1557-00).

Compaction of Fill: After each layer has been moisture-conditioned, mixed, and evenly spread, it should be uniformly compacted to a minimum of 90 percent of maximum dry density as determined by ASTM test method D1557-00. Compaction equipment shall be adequately sized and be either specifically designed for compaction of earth materials or be proven to consistently achieve the required level of compaction.

Compaction of Fill Slopes: In addition to normal compaction procedures specified above, additional effort to obtain compaction on slopes is needed. This may be accomplished by backrolling of slopes with sheepsfoot rollers as the fill is being placed, by overbuilding the fill slopes, or by other methods producing results that are satisfactory to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill and the slope face shall be a minimum of 90 percent of maximum density per ASTM test method D1557-00.

Compaction Testing of Fill: Field tests for moisture content and relative density of the compacted fill earth materials shall be periodically performed by the Geotechnical Consultant. The location and frequency of tests shall be at the Geotechnical Consultant's discretion based on field observations. Compaction test locations will not necessarily be random. The test locations may or may not be selected to verify minimum compaction requirements in areas that are typically prone to inadequate compaction, such as close to slope faces and near benching.

Frequency of Compaction Testing: Compaction tests shall be taken at minimum intervals of every 2 vertical feet and/or per 1,000 cubic yards of compacted materials placed. Additionally, as a guideline, at least one (1) test shall be taken on slope faces for each 5,000 square feet of slope face and/or for each 10 vertical feet of slope. The Contractor shall assure that fill placement is such that the testing schedule described herein can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork operations to a safe level so that these minimum standards can be obtained.

Compaction Test Locations: The approximate elevation and horizontal coordinates of each test location shall be documented by the Geotechnical Consultant. The Contractor shall coordinate with the Surveyor to assure that sufficient grade stakes are established. This will provide the Geotechnical Consultant with sufficient accuracy to determine the approximate test locations and elevations. The Geotechnical Consultant can not be responsible for staking erroneously located by the Surveyor or Contractor. A minimum of two grade stakes should be provided at a maximum horizontal distance of 100 feet and vertical difference of less than 5 feet.

Subdrain System Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the approved grading plan, and the typical details provided herein. The Geotechnical Consultant may recommend additional subdrain systems and/or changes to the subdrain systems described herein, with regard to the extent, location, grade, or material depending on conditions encountered during grading or other factors. All subdrain systems shall be surveyed by a licensed land surveyor (except for retaining wall subdrain systems) to verify line and grade after installation and prior to burial. Adequate time should be allowed by the Contractor to complete these surveys.

Excavation

All excavations and over-excavations for remedial purposes shall be evaluated by the Geotechnical Consultant during grading operations. Remedial removal depths indicated on the geotechnical plans are estimates only. The actual removal depths and extent shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading operations. Where fill over cut slopes are planned, the cut portion of the slope shall be excavated, evaluated, and accepted by the Geotechnical Consultant prior to placement of the fill portion of the proposed slope, unless specifically addressed by the Geotechnical Consultant. Typical details for cut over fill slopes and fill over cut slopes are provided herein.

Trench Backfill

1) The Contractor shall follow all OHSA and Cal/OSHA requirements for trench excavation safety.

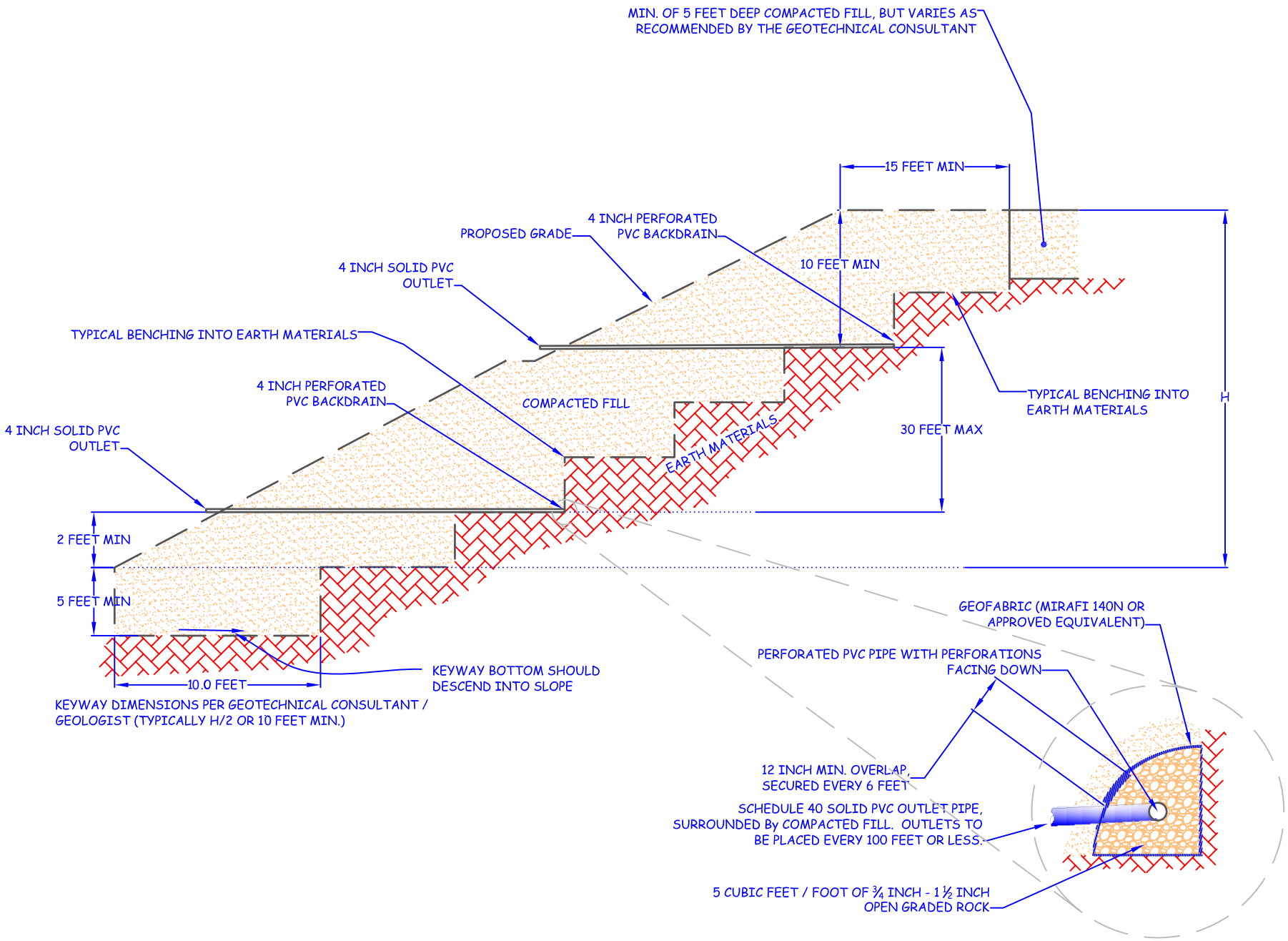
2) Bedding and backfill of utility trenches shall be done in accordance with the applicable provisions in the Standard Specifications of Public Works Construction. Bedding materials shall have a Sand Equivalency more than 30 (SE>30). The bedding shall be placed to 1 foot over the conduit and thoroughly jetting to provide densification. Backfill should be compacted to a minimum of 90 percent of maximum dry density, from 1 foot above the top of the conduit to the surface.

3) Jetting of the bedding materials around the conduits shall be observed by the Geotechnical Consultant.

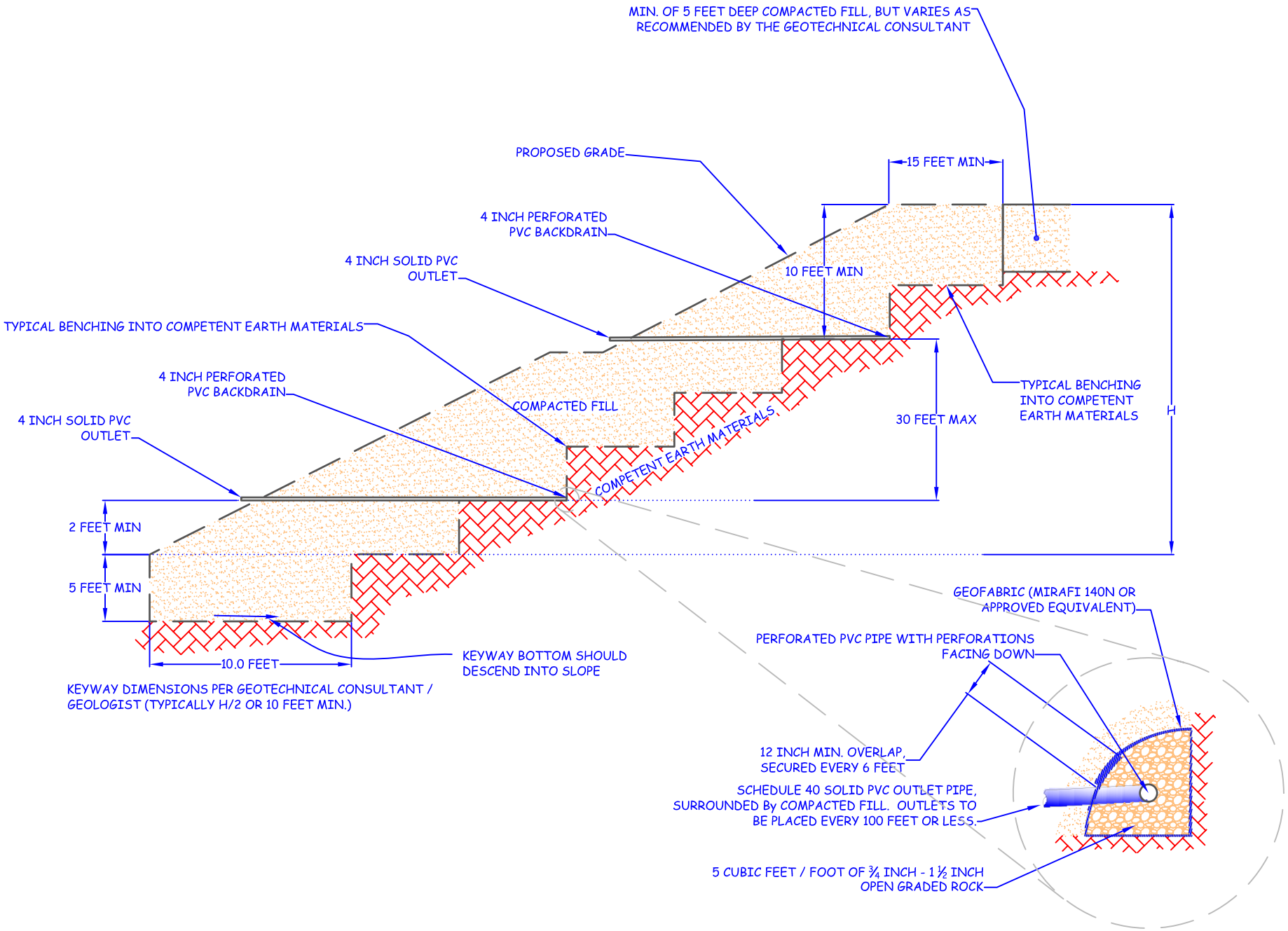
4) The Geotechnical Consultant shall test trench backfill for the minimum compaction requirements recommended herein. At least one test should be conducted for every 300 linear feet of trench and for each 2 vertical feet of backfill.

5) For trench backfill the lift thicknesses shall not exceed those allowed in the Standard Specifications of Public Works Construction, unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment or method.

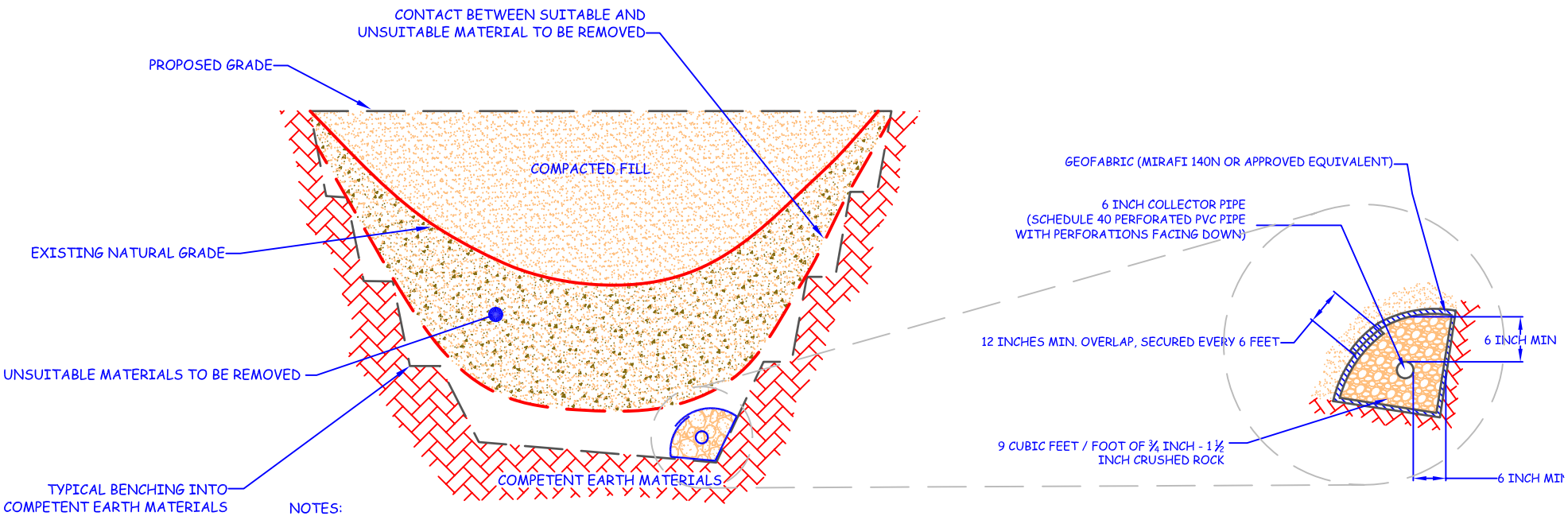
STABILIZATION FILL TYPICAL DETAIL



BUTTRESS TYPICAL DETAIL



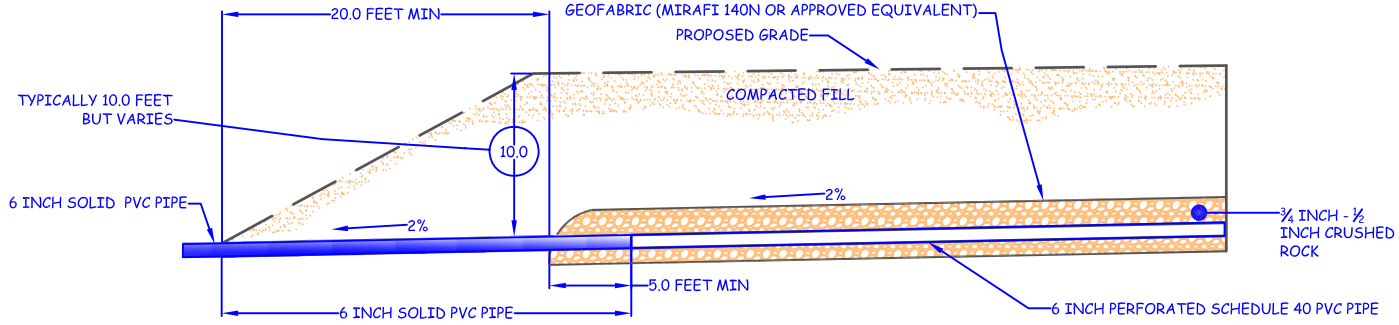
CANYON SUBDRAIN SYSTEM TYPICAL DETAIL



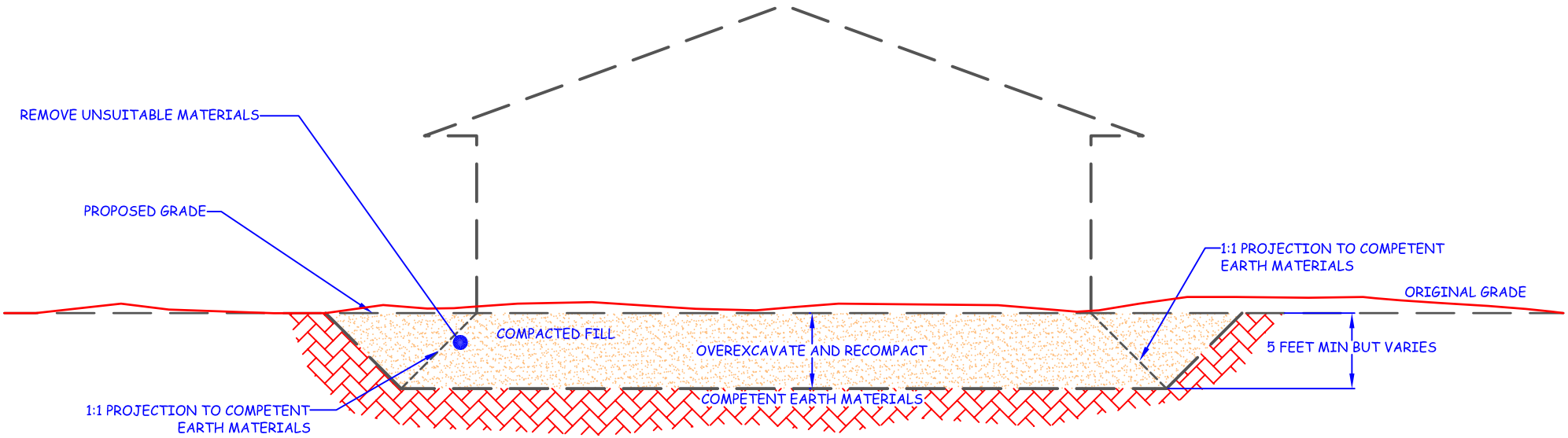
NOTES:
1 - CONTINUOUS RUNS IN EXCESS OF 500 FEET LONG WILL REQUIRE AN 8 INCH DIAMETER PIPE.

2 - FINAL 20 FEET OF PIPE AT OUTLET WILL BE SOLID AND BACKFILLED WITH COMPACTED FINE-GRAINED EARTH MATERIALS.

CANYON SUBDRAIN TYPICAL OUTLET



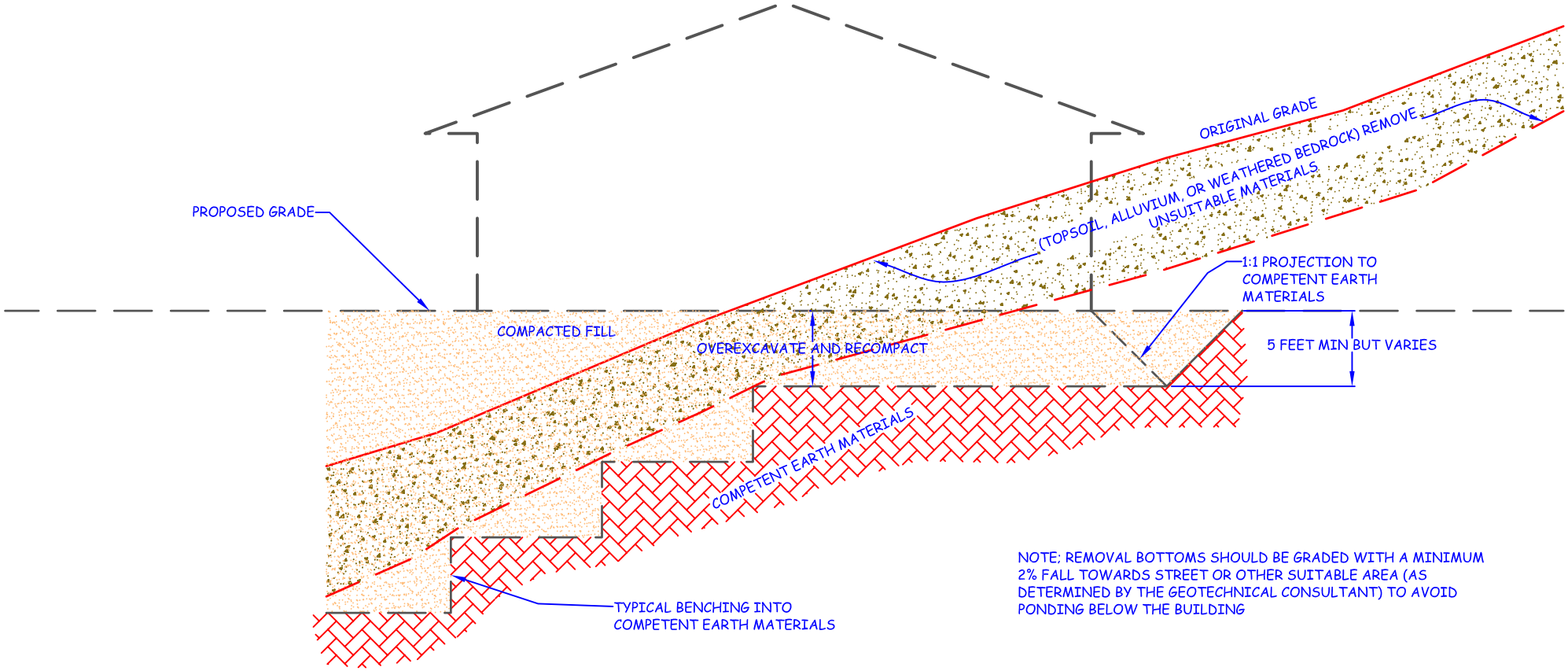
CUT LOT TYPICAL DETAIL



NOTE; REMOVAL BOTTOMS SHOULD BE GRADED WITH A MINIMUM 2% FALL TOWARDS STREET OR OTHER SUITABLE AREA (AS DETERMINED BY THE GEOTECHNICAL CONSULTANT) TO AVOID PONDING BELOW THE BUILDING

NOTE: WHERE DESIGN CUT LOTS ARE EXCAVATED ENTIRELY INTO COMPETENT EARTH MATERIALS, OVEREXCAVATION MAY STILL BY NEEDED FOR HARD-ROCK CONDITIONS OR MATERIALS WITH VARIABLE EXPANSION POTENTIALS

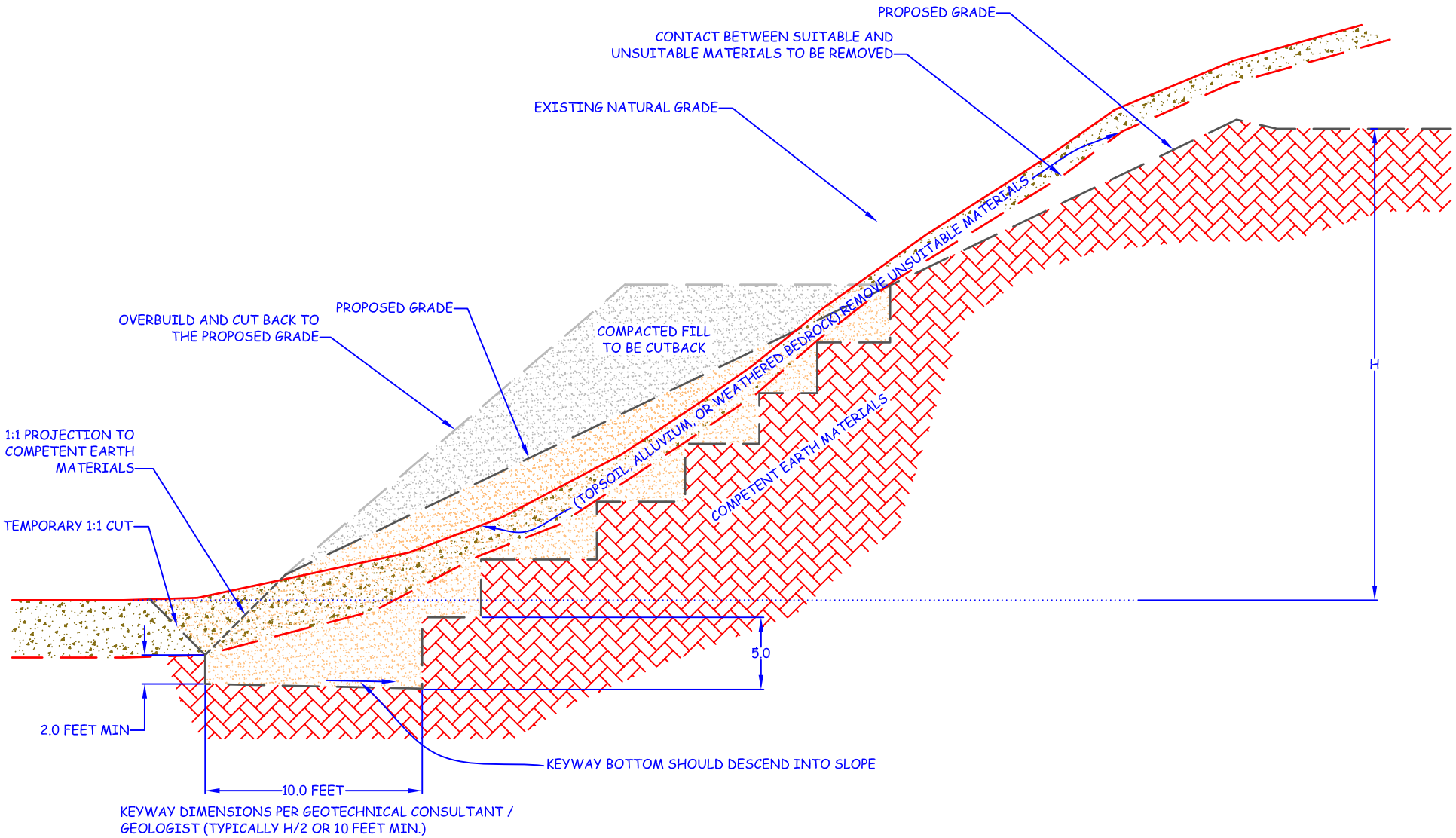
CUT / FILL TRANSITION LOT TYPICAL DETAIL



NOTE; REMOVAL BOTTOMS SHOULD BE GRADED WITH A MINIMUM 2% FALL TOWARDS STREET OR OTHER SUITABLE AREA (AS DETERMINED BY THE GEOTECHNICAL CONSULTANT) TO AVOID PONDING BELOW THE BUILDING

NOTE: WHERE DESIGN CUT LOTS ARE EXCAVATED ENTIRELY INTO COMPETENT EARTH MATERIALS, OVEREXCAVATION MAY STILL BY NEEDED FOR HARD-ROCK CONDITIONS OR MATERIALS WITH VARIABLE EXPANSION POTENTIALS

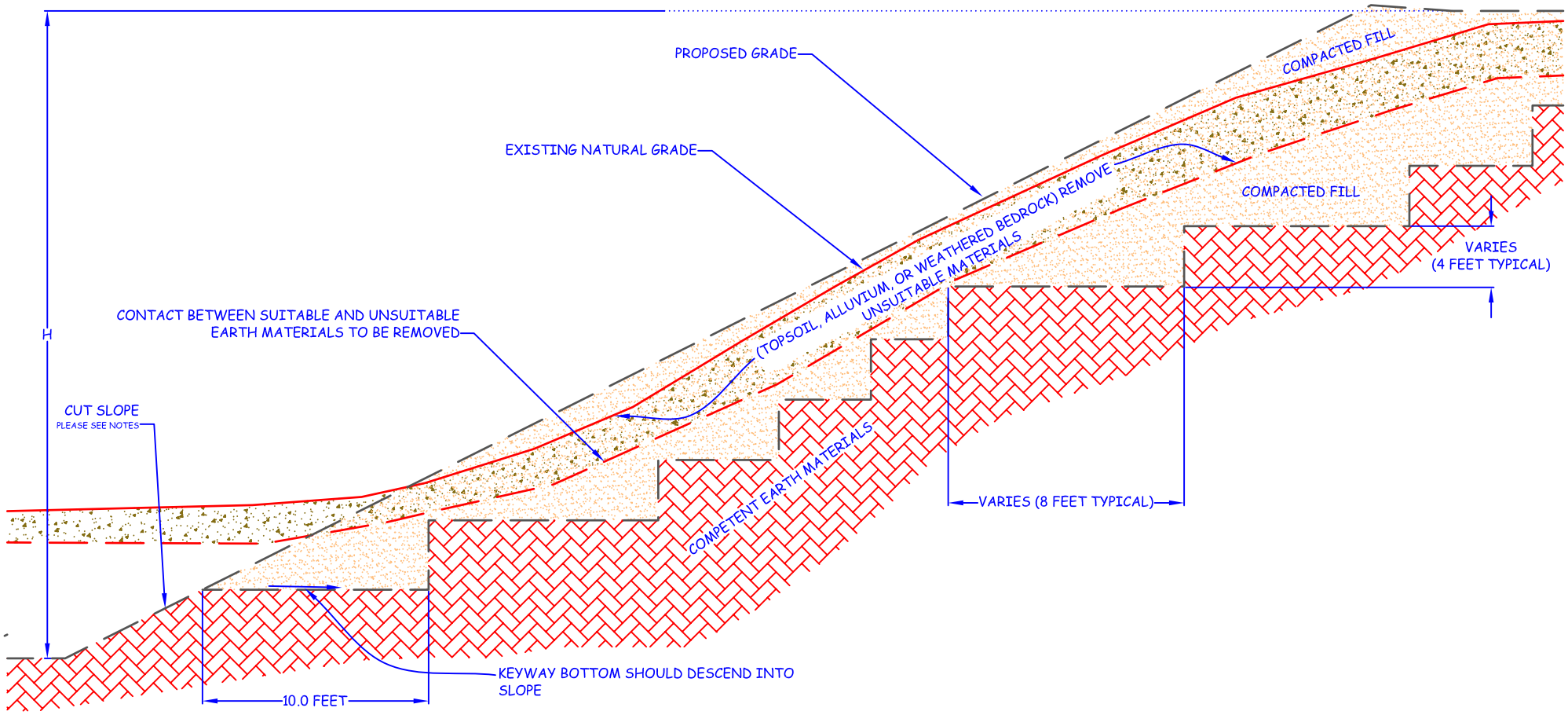
KEYWAY & BENCHING TYPICAL DETAILS
CUT OVER FILL SLOPE



NOTE:

NATURAL SLOPES STEEPER THAN 5:1 (H:V) MUST BE BENCHED INTO COMPETENT EARTH MATERIALS

KEYWAY & BENCHING TYPICAL DETAILS
FILL OVER CUT SLOPE



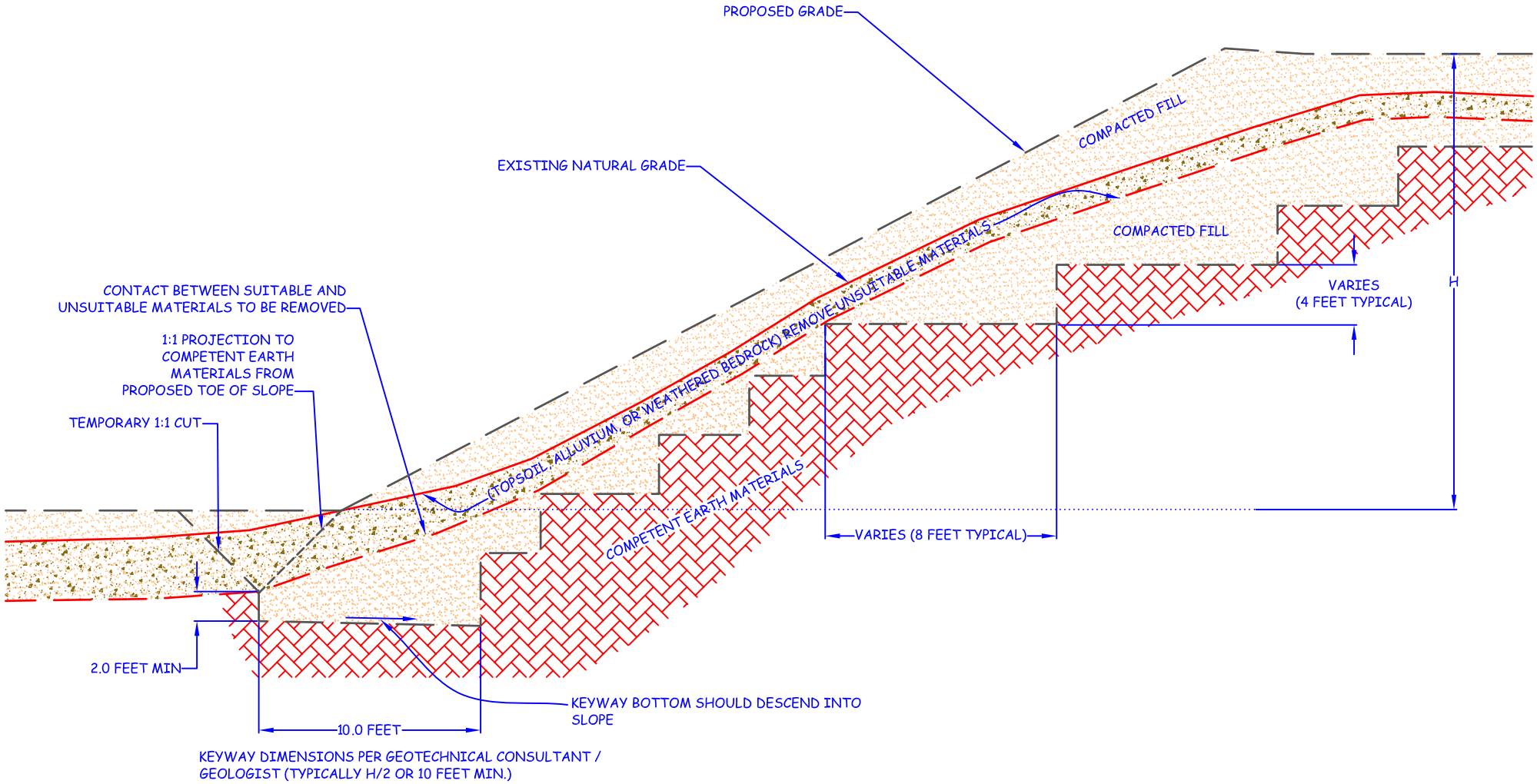
KEYWAY DIMENSIONS PER GEOTECHNICAL CONSULTANT / GEOLOGIST (TYPICALLY H/2 OR 10 FEET MIN.)

NOTES:

NATURAL SLOPES STEEPER THAN 5:1 (H:V) MUST BE BENCHED INTO COMPETENT EARTH MATERIALS

THE CUT SLOPE MUST BE CONSTRUCTED FIRST

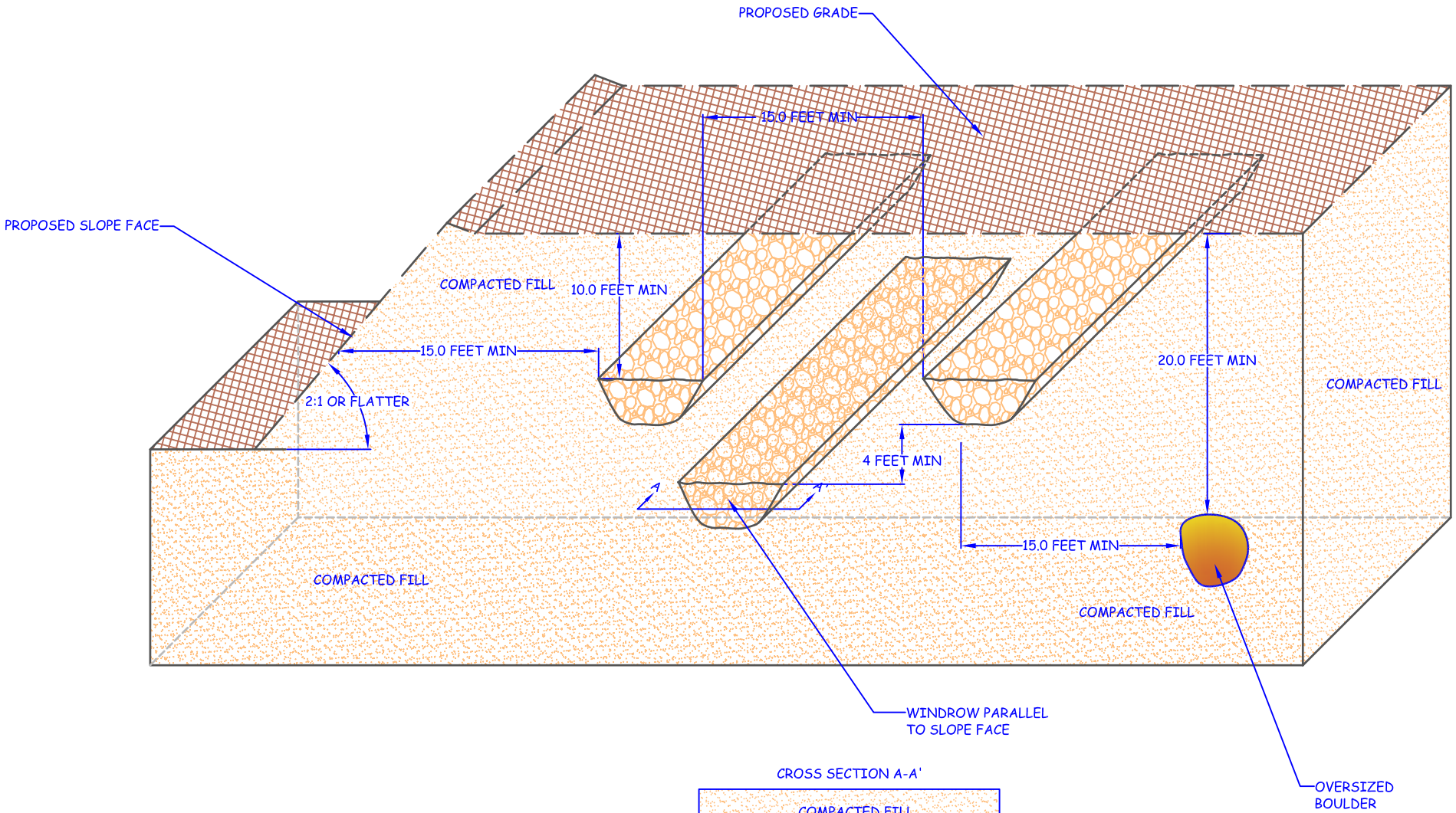
KEYWAY & BENCHING TYPICAL DETAILS
FILL SLOPE

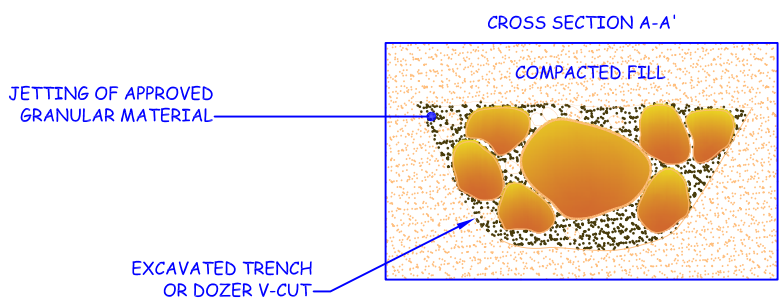


NOTES:

NATURAL SLOPES STEEPER THAN 5:1 (H:V) MUST BE BENCHED INTO COMPETENT EARTH MATERIALS

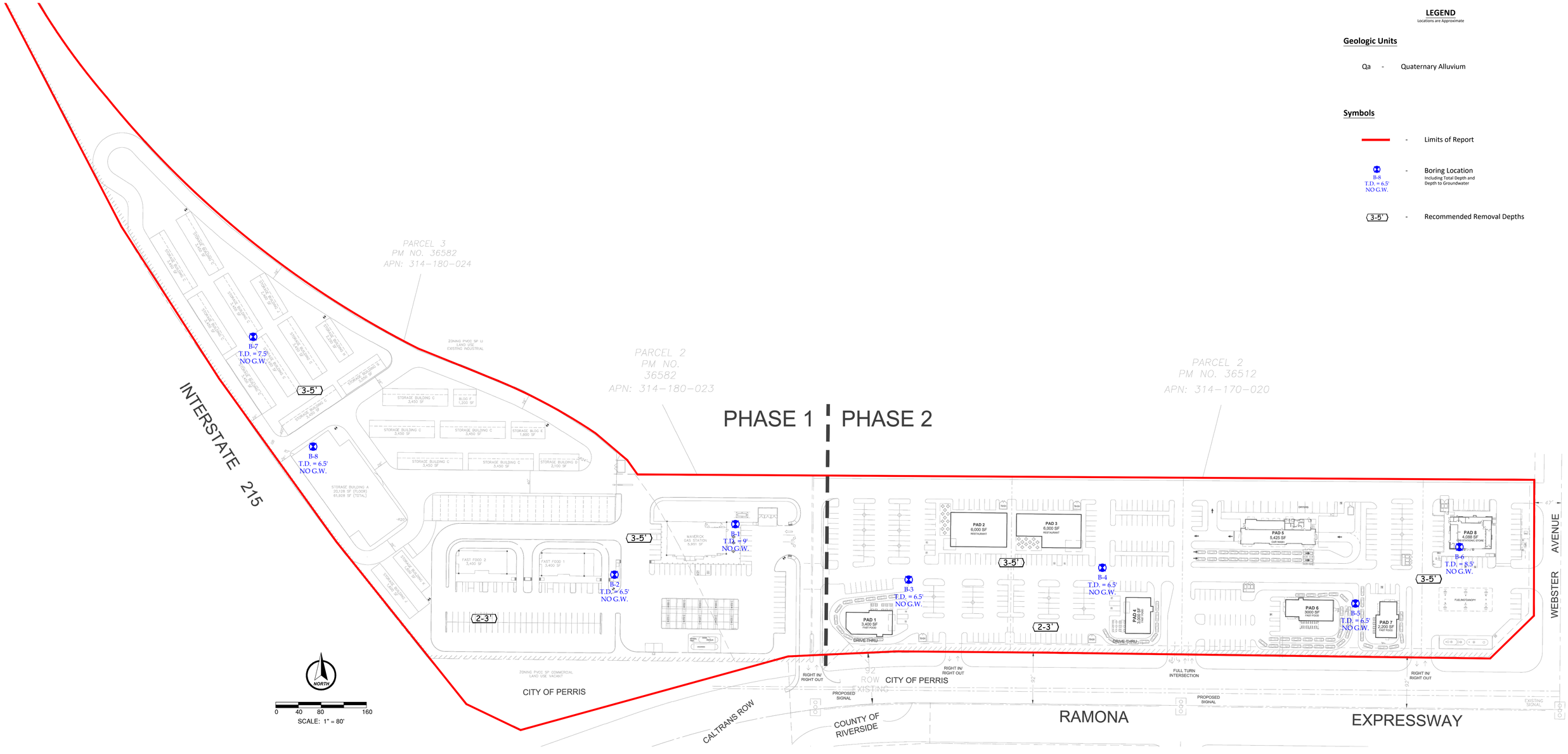
OVERSIZE ROCK TYPICAL DETAIL





NOTES:

OVERSIZE ROCK IS LARGER THAN
8 INCHES IN MAX DIAMETER



GEOTECHNICAL MAP

LOCATED NORTH OF RAMONA EXPRESSWAY AND EAST OF I-215, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA APN 314-170-020, 317-180-023, AND -024

PROJECT	***PERRIS GATEWAY COMMERCIAL DEVELOPMENT***		
CLIENT	***MR. MIKE NAGGAR***		
PROJECT NO.	***235075-10A***		
DATE	***AUGUST 2023***		
SCALE	***1" = 80'***		
DWG XREFS			
REVISION			
DRAWN BY	***JDG***	***PLATE***	***1***

Earth Strata Geotechnical Services, Inc.
Geotechnical, Environmental and Materials Testing Consultants
www.ESGSINC.com (951) 397-8315

26 April 2024

Kelly Olauson
Optimus Building Corporation
121 Osprey Cove Lane
Ponte Vedra Beach, FL 32082

RE: Paleontological Resources Memorandum – Perris Gateway Project

Dear Ms. Olauson:

This letter presents a brief summary of the paleontological sensitivity of the geologic units underlying the proposed Perris Gateway project (Project) site, located in the northwestern portion of the City of Perris, Riverside County, California. The approximately 20-acre Project site is bordered to the west by the northbound on ramp to Interstate (I-) 215, to the south by the Ramona Expressway, to the east by Webster Avenue, and to the north by existing light industrial development.

Methods

A review of published geological maps covering the Project site and surrounding area was conducted to determine the specific geologic units known to underlie the Project site. Relevant published and unpublished geological and paleontological reports were also reviewed. The geologic units mapped as underlying the Project site were subsequently assigned a paleontological resource sensitivity following the tripartite scale utilized by the City of Perris (City of Perris, 2008).

Results

The proposed Project site is located within the Perris Block of the Peninsular Ranges Geomorphic Province (English, 1926; Norris and Webb, 1990). This structural block is surficially expressed as a relatively low relief, deeply weathered basin punctuated by resistant hills and small mountains, and is surrounded by the Sana Ana Mountains to the west and south, the San Jacinto Mountains to the east, and the San Gabriel and San Bernardino Mountains to the north. The Perris Block is a fault-controlled region, with the San Jacinto Fault to the northeast and the Elsinore Fault to the southwest. Faulting is responsible for the uplift of the surrounding mountain ranges and down dropping of the Perris Block. As a consequence, the surrounding mountain ranges are actively being eroded, and the sediments derived from this erosion have in the past been, and are still being, deposited in the basin lowlands as alluvial fans and/or stream channel deposits. These surficial deposits overlie a deeply weathered mass of Cretaceous plutonic igneous rocks of the Peninsular Ranges Batholith and older, pre-batholithic metasedimentary basement rocks.

Published geological mapping covering the Project area (e.g., Morton et al., 2002, 2003; Morton and Miller, 2006) primarily indicates that the proposed Project site is entirely underlain by early to middle Pleistocene-age (approximately 2.58 million to 129,000 years old) very old alluvial-fan deposits (Qvof; Figure 1). These deposits may be overlain by a veneer of younger Holocene-age (less than approximately 11,700 years old) alluvial sand and clay of valley areas, as indicated in published geological mapping by Dibblee and Minch (2003a,b).

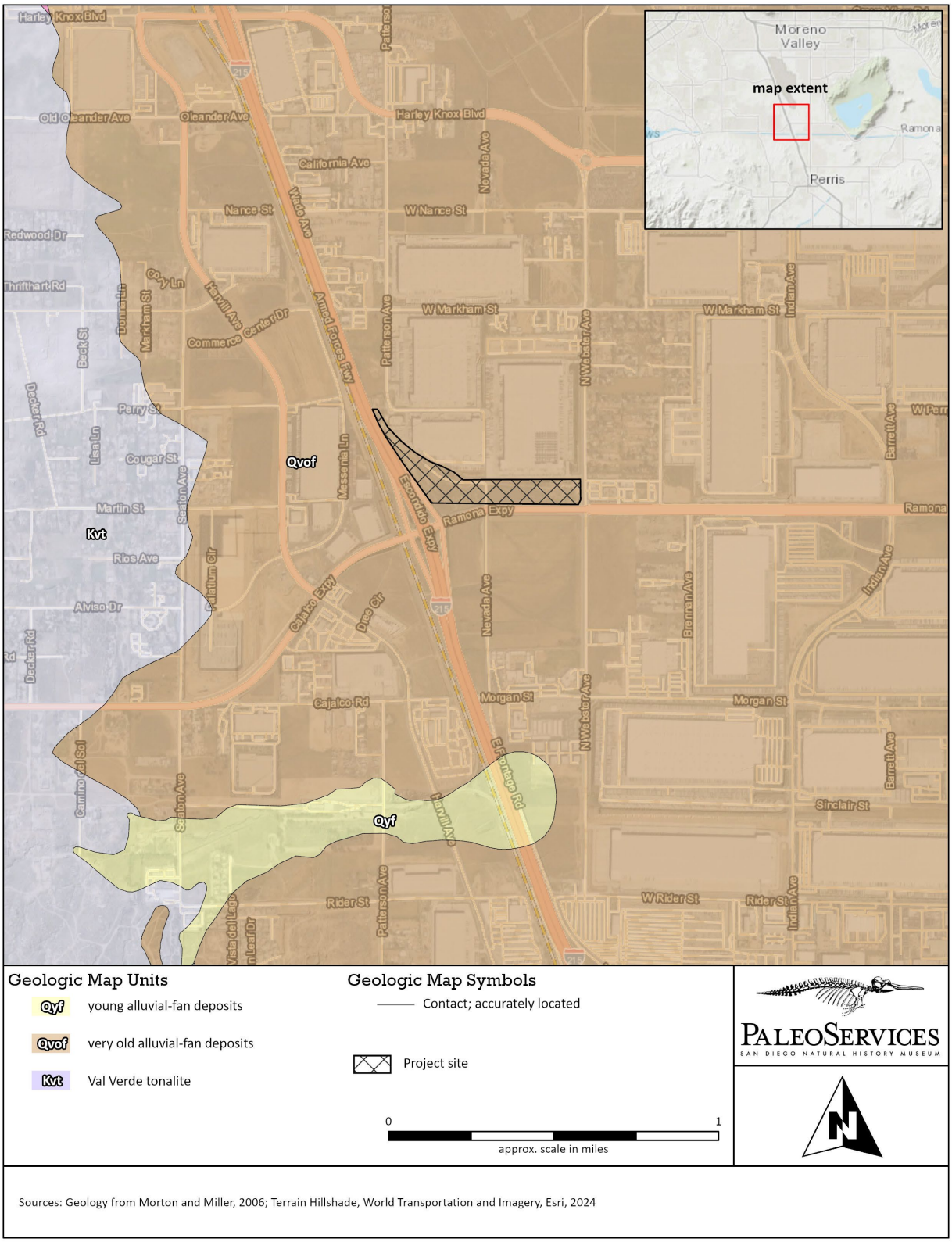


Figure 1. *Geologic map of the Project site.*

The SDNHM does not have any documented fossil collection localities within a one-mile radius of the proposed Project site. The closest SDNHM fossil locality from similar Pleistocene-age alluvial deposits is located approximately 18 miles to the east-southeast in the San Jacinto Valley within the City of San Jacinto, where fossil remains of physid snails, frogs, colubrid snakes, lizards, and rodents (including the pocket gopher *Thomomys* sp.) were discovered at a depth of 10 feet below ground surface (bgs) during paleontological monitoring of mass grading for a new middle school (SDNHM unpublished paleontological collections data).

More broadly, fossils have been documented in similar Pleistocene-age alluvial deposits elsewhere within western Riverside County. For example, multiple fossil localities were discovered in Pleistocene-age alluvial deposits during construction of the Aldi Distribution Center in the City of Moreno Valley, located approximately 10 miles northeast of the proposed Project site (LSA, 2014). These localities produced isolated fossil remains of giant ground sloth (*Megalonyx jeffersonii* or *Nothrotheriops shastensis*), camelid (*Hemiauchenia*), and horse (*Equus*) (LSA, 2014). The fossil-bearing deposits were exposed at depths of 11 and 13 feet bgs in an area where young alluvial-fan deposits are mapped at the surface (LSA, 2014). Additionally, significant fossils were discovered approximately 19 miles to the southeast of the Project site in Pleistocene-age braided stream and lake deposits exposed during construction of the Diamond Valley Lake project. Recovered fossils consist of large-bodied "Ice Age" mammals (e.g., ground sloth, weasel, skunk, badger, wolf, saber-toothed cat, American lion, puma, peccary, camel, pronghorn antelope, deer, bison, mastodon, and mammoth) (Springer et al., 2009, 2010). Pleistocene-age vertebrate fossils have also been recovered from wind-deflated paleosols preserved within alluvial fan deposits in the Mojave Desert of eastern Riverside County (Raum et al., 2014; Stewart et al., 2012).

According to the Conservation Element of the City of Perris General Plan (City of Perris, 2008), the Pleistocene-aged alluvial-fan deposits underlying the Project site are assigned a High Paleontological Sensitivity. The high sensitivity rating of Pleistocene-aged alluvial-fan deposits is supported by the known occurrence of scientifically significant fossils from similar deposits as encountered elsewhere in western Riverside County.

Summary and Recommendations

The high paleontological sensitivity of Pleistocene-aged alluvial-fan deposits in the City of Perris suggests the potential for construction of the proposed Project to result in impacts to paleontological resources. Any proposed excavation activities that extend deep enough to encounter previously undisturbed deposits of this geologic unit (i.e., below the depth of any previously imported artificial fill or disturbed sediments present at the Project site) have the potential to impact the paleontological resources preserved therein. If such excavation is required for Project construction, implementation of a complete paleontological resource mitigation program during ground-disturbing activities is recommended. The mitigation program must include, at a minimum, measures for earthwork monitoring, fossil salvage and data recovery, laboratory preparation and curation of recovered fossils into the permanent fossil collections of an appropriate regional repository, and production of a final paleontological mitigation report.

If you have any questions concerning these findings please feel free to contact me at 619-255-0264 or kmccomas@sdnhm.org.

Sincerely,

Katie McComas, M.S.
Paleontological Report Writer & GIS Specialist
San Diego Natural History Museum

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Earth Strata Geotechnical Services, Inc.

Geotechnical, Environmental and Materials Testing Consultants

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Of

VACANT PROPERTY
ASSESSOR'S PARCEL NUMBERS
APNS 314-170-020, 314-180-023, AND 314-180-024
RAMONA EXPRESSWAY
PERRIS, CALIFORNIA 92571

Prepared for:

Mr. Michael Naggar
Mike Naggar & Associates, Inc.
445 South D Street
Perris, CA 92570

Prepared by:

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Temecula, California 92590
(951) 461-4028
www.earth-strata.com
ESGS Project P235075-60

Issue Date: July 24, 2023

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E. File Review Information/City Directory
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PHASE I ESA EXECUTIVE SUMMARY OVERVIEW Vacant Property Perris, CA				
Section Topic	**No RECs, CRECs, HRECs, or de minimis conditions Identified**	**Non-REC Issue Identified**	**RECs Identified**	**Comments**
Historical Usage	✔			
Regulatory Database Review (on-site)	✔			
Regulatory Database Review (nearby sites)	✔			
On-site Operations	✔			
Haz. Mat. Handling	✔			
Haz. Waste Handling	✔			
USTs/ ASTs	✔			
ACMs	✔			
LBP	✔			
PCBs	✔			
Radon	✔			
Other	✔			

SECTION I.
EXECUTIVE SUMMARY & RECOMMENDATIONS

Earth Strata Geotechnical Services, (ESGS) was retained by Mike Naggar & Associates (Client) to perform a Phase I Environmental Assessment (Phase I ESA or Assessment) of a site located at the northwest corner of Ramona Expressway and North Webster Avenue, and east of 215 Freeway, Perris, California. At the time of the July 24, 2023, site visit, the subject site consisted of an undeveloped property consisting of three parcels of land, totaling approximately 20.28-Acres.

This Phase I ESA was performed in accordance with the scope and limitations of the *American Society for Testing and Materials (ASTM) Phase I ESA Standard E1527-2021* (Equivalent to the USEPA's All Appropriate Inquiry [AAI] Standard) and the *All Appropriate Inquiry Standards found at 40 C.F.R Part 312*, the scope of work defined in this report, as well as the signed service agreement. The following summarizes ESGS's independent conclusions and best professional judgment based upon information available to us during the course of this Assessment.

A site reconnaissance was performed on July 24, 2023. The ESGS Assessor was not accompanied by an individual due to the vacancy of the site. The site is currently undeveloped. The "Key Site Manager" was identified as Mr. Mike Naggar, the project manager of Mike Naggar & Associates.

As defined by ASTM E1527, the Key Site Manager is that person having good knowledge of the uses and physical characteristics of the subject site, and in a position to provide reasonably accurate information for the Key Site Manager Environmental Questionnaire. The questioner was performed by ESGS. The questionnaire can be found in appendix F.

In summary, the following findings and conclusions were noted:

- From at least 1938 to 1949, the site is developed with single family residences in the southwest and northwest corner of the site. By at least 1953, the residential structures have been removed and the site is vacant and undeveloped. The site has remained vacant. The site vicinity consisted of undeveloped land with sporadic single-family residences with some properties used for dry farming. Throughout the years, the site vicinity consisted of commercial/industrial development.
- Groundwater is reported in the site vicinity to occur at a depth approximately 63 feet below the ground surface (bgs) and is anticipated to flow in the easterly-northeasterly direction.
- No buildings are currently present; therefore, asbestos containing building materials (ACMs) and lead-based paint (LBP) are not likely present.
- No on- or off-site environmental concerns were noted.

RECOMMENDATIONS

Based on this Phase I ESA, no evidence or indication of RECs, historical-RECs (HRECs), controlled-RECs (CRECs), or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the site has been identified. Therefore, no further investigation is recommended for this site.
An Executive Summary Overview is also included in the previous section. However, when making any decisions concerning the findings of this Assessment, please also refer to the entirety of this report, which may present other items of interest that are not discussed in the Executive Summary, or further details regarding the above items. In addition, please refer to the Data Gaps section (IV-H) of this report regarding information that may have been unavailable or incomplete which may have a bearing on the findings or usage of this report.

A summary of the pertinent dates contained in this report are as follows:

- Environmental liens were searched on July 20, 2023.
- A visual inspection of the subject site was conducted on July 24, 2023.
- The database searches were conducted on July 24, 2023.
- The declaration made by Mr. William Doyle is dated as of July 28, 2023.
- The owner's questionnaire from ESGS is dated as of July 21, 2023.

RELIANCE:
This report has been prepared for the benefit of the Client. The report may not be relied upon by any other person or entity without the express written consent of E-S and the Client. ESGS and Client expressly authorize Mike Naggar & Associates and their respective successors and/or assigns to rely upon this report to the same extent as the Client.

SECTION II.
SCOPE OF WORK & LIMITATIONS

PURPOSE

The primary goal of this Phase I Environmental Site Assessment is to assist the client in satisfying one of the requirements to qualify for the "innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability" (42 U.S.C. § 9601 et. seq.). Qualification for these limitations is predicated on the assumption that "…the defendant must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability…." The secondary goal of this Assessment is to provide information that will assist in evaluating the risk of potential significant value impairment of the security interest due to environmental impacts.

PROTOCOL

The *American Society for Testing and Materials (ASTM) Phase I ESA Standard E1527* is the most current method used in attempting to perform the due diligence required to achieve the above purpose. The E1527 Standard was created by the ASTM "…in an effort to define good commercial and customary practice in the United States of America for conducting an environmental site assessment.…" and is equivalent to the USEPA's All Appropriate Inquiry [AAI] Standard. The ASTM Standard E1527 is intended to identify recognized environmental conditions (RECs) in connection with a given property. The term recognized environmental conditions is not intended to include "*de minimus*" conditions that generally do not present a material risk of harm or that are unlikely to be the subject of enforcement actions by governmental agencies. Other conditions or issues that are beyond the ASTM scope may also be discussed in this report, as detailed within each section.

SCOPE OF WORK

Utilizing ASTM Standard E1527, as well as the scope of work discussed below and in the work authorization document, this Assessment involved: A site reconnaissance of the subject site, limited observations of adjoining properties, a review of the historical usage of the subject site, and a review of relevant documentation provided by various public and private sources (including the client and/or owner of the subject site) to identify conditions indicative of releases or threatened releases of hazardous substances, as defined in CERCLA Section 101 (14) U.S.C. § 312.1(c) evaluate the presence or likely existence of:

- Recognized environmental conditions, specified by ASTM E1527 as: "the presence or likely presence of any hazardous substances or petroleum products in, on, or at the subject property due to any release, a past release to the environment; under conditions indicative of a release to the environment; the likely presence of hazardous substances or petroleum products in, on or at the subject property under

conditions that pose a material threat of a future release to the environment. *De Minimis Conditions are not recognized environmental conditions.*

- A brief evaluation and assessment of potential environmental issues which may not rise to the level of recognized environmental conditions, such as: obviously improper hazardous material or waste handling, suspect asbestos-containing materials, lead-based paint, polychlorinated bi-phenyls, and radon gas.

LIMITATIONS

As discussed in ASTM E1527, no Phase I ESA can completely eliminate uncertainty regarding the potential for RECs in connection with a subject site. This investigation is simply intended to reduce uncertainty within reasonable limits of time and cost.

Refer to Section VI-A for a brief discussion of some (but not necessarily all) specific limitations to ESGS's subject site observations at the time of the site visit. The observations contained within this Assessment are based upon conditions readily observable during the site visit. These observations are typically unable to address conditions of areas not inspected, hidden from view, subsurface soil, groundwater, underground storage tanks, neighboring properties, and the like, unless specifically mentioned. It is not the purpose of this Assessment to determine the actual presence, or degree or extent of contamination (if any) at the subject site. Unless specifically noted within this report, this Assessment does not include observations, testing, coring, or sampling analysis to address groundwater, soil, or extraneous materials contamination (including mold, bio-hazardous or radiologic issues) in or on the subject site. ESGS also is not providing geological interpretations or recommendations. Electromagnetic issues (e.g., proximity to high-voltage power lines) are also not included. This Assessment does not include or address reasonably ascertainable environmental liens recorded against the subject site, unless stated.

ESGS makes no warranties or guarantees as to the accuracy or completeness of information obtained from or compiled by others. Information may also exist which was beyond the scope of this investigation or was not provided to ESGS that may have an impact on the conclusions of this Assessment. This Assessment does not attempt to address past or forecast future site conditions. ESGS also cannot forecast or be responsible for changes in regulatory guidelines or protocols, industry standards or the like, which may affect the conclusions and/or future usage of this report.

This Assessment has been conducted and prepared in accordance with generally accepted practices and procedures exercised by reputable professionals under similar circumstances. ESGS makes no other warranties or guarantees, either expressed or implied, as to the findings, opinions, or recommendations contained in the report, or as to the existence or non-existence of RECs or other issues at the subject site.

SECTION III.
GENERAL SITE DESCRIPTION

Earth Strata Geotechnical Services performed a Phase I Environmental Site Assessment at a site located at the northwest corner of Ramona Expressway and North Webster Avenue, and east of 215 Freeway, Perris, California. At the time of the July 24, 2023, site visit, the subject site consisted of an undeveloped property consisting of three parcels of land, totaling 20.28 acres. Pictures of the site can be found in Appendix A.

A. CLIENT PROVIDED INFORMATION

As discussed in ASTM E1527, the user (e.g., Client) is required to perform certain tasks or provide certain information to ESGS in order to identify potential RECs. Tasks or information to be provided by the Client include: 1) review of judicial and title records for environmental liens, environmental deed restrictions or activity and use limitations (AULs); 2) provide specialized, actual, commonly known or reasonably ascertainable knowledge regarding the property; and 3) identify reasons for a significantly lower purchase price (if applicable). The client has provided a title report and can be found in Appendix E.

B. ADJOINING AND ADJACENT PROPERTIES

As discussed in ASTM E1527, an adjoining property is any real property whose border is contiguous or partially contiguous with the subject site or would be if the properties were not separated by a roadway, street, or other public thoroughfare. For the purposes of this report, an adjacent property is any real property located within approximately one block or less of the subject site's border.

Specifically, the subject site is bordered by the following:

West: Immediately by the on-ramp for 215 Freeway, beyond which is 215 Freeway and commercial warehousing.

East: Immediately by North Webster Avenue, beyond which is Chevron Gasoline Station and retail restaurants.

South: Immediately by Ramona Expressway, beyond which is vacant and undeveloped properties.

North: Immediately by commercial warehouse buildings occupied by Ferguson Plumbing Supply and Amazon.

C. USGS TOPOGRAPHIC MAP

The subject site's physical setting was researched employing a United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle (Quad) Map relevant to the subject site. The USGS 7.5 Minute Quad Map has an approximate scale of 1 inch to 2,000 feet, and shows physical features such as wetlands, roadways, mines, and buildings. The USGS 7.5 Minute Quad Map was used as the Standard Physical Setting Source and is sufficient as a single reference. The USGS, California Quad Map shows no physical features that are likely to environmentally impact the subject site. The subject site is identified as vacant, rectangular property. No mines, aboveground storage tanks, or wetlands were depicted in the immediate area of the subject site. The elevation of the subject site is approximately 1,493 feet above mean sea level with a gentle topographic gradient to the east-northeast (USGS 7.5' Quadrangle). A copy of the map can be found in the Radius Map Report in Appendix D.

D. PHYSICAL AND GENERAL HYDROGEOLOGIC CHARACTERISTICS

The property is located within the lower Peninsular Range region of Riverside County (County), a subset of the greater Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges Geomorphic Province is approximately bounded to the east by the Elsinore Fault Zone, to the north by the Transverse Ranges, to the south by Baja California, and to the west by the Pacific Ocean. This portion of the Peninsular Ranges is underlain by Jurassic and Cretaceous plutonic rocks of the Peninsular Ranges Batholith, which contains screens of variably metamorphosed Mesozoic supracrustal rocks. Late Jurassic and Early Cretaceous volcanic and volcaniclastic rocks exposed southwest of the Elsinore Fault Zone represent an older superjacent part of the Peninsular Ranges magmatic arc. These basement rocks are non-conformably overlain by a thick sequence of relatively undisturbed sedimentary rocks ranging from upper Cretaceous to Pleistocene in age. Hydrologic and soil type information can be in the Radius map report in Appendix D.

SECTION IV.
HISTORICAL REVIEW

The site historical review is used to develop an understanding of the previous uses of the subject site and surrounding area in an effort to identify the likelihood of past uses, or activities having environmentally impacted, the subject site. The historical review consisted of a search of various public and private Standard Historical Sources, as detailed in the sections below.

As defined by ASTM E1527, a Standard Historical Source is considered complete if the information contained within the source identifies all uses of the subject site from the time the property was first used for residential, agricultural, commercial, industrial or governmental purposes. Ideally, the information should be available in either five-year intervals or site milestone events (i.e., initial construction activities, demolition activities, etc.). However, available public and private historical sources do not always fulfill this goal, in which case, the closest approximation is made based upon the sources readily available at the time of historical review.

Historical Review Summary: From the historical information review discussed below, ESGS concludes that no structures have been developed on the subject site and the site has been used for agricultural purposes. The property is currently undeveloped, vacant and partially used for agricultural purposes. No dry cleaners, gasoline stations, major landfills, military bases, or heavy industrial businesses were historically identified on the subject site.

A. AERIAL PHOTOGRAPH REVIEW

Aerial photographs were reviewed by ESGS to evaluate past land-use patterns of the subject site and vicinity. The photos were supplied by EDR and are from the following years 1938, 1949, 1953, 1961, 1967, 1974, 1978, 1985, 1989, 1990, 1994, 1997, 2002, 2006, 2009, 2012, 2016, and 2020. Copies of representative aerial photographs can be found in Appendix B. This review revealed the following:

1938 to 1949
The subject site appears to be developed with a single-family residence and associated structures located in the southwest corner of the site. Ramona Expressway and 215 Freeway are noted immediately south and west of the site, respectively. The site vicinity consists of undeveloped land with sporadic single-family residences with some properties used for dry farming. By at least 1949, an additional single-family residence is noted in the northwest portion of the site.

1953 to 1985
The single-family residences and associated structures are no longer noted by at least 1953. The site vicinity consists of undeveloped land, sporadic single-family residences, and land used for dry farming. By at least 1961, Ramona Expressway and 215 Freeway are noted to be paved. By at least 1985, Nevada Road located within the site boundary is noted and 215 Freeway was expanded with a bridge across the freeway. No major changes to the site or site vicinity were noted. subject site appears

to be undeveloped with a single-family residence and associated structures located in the southwest corner of the site. Ramona Expressway and 215 Freeway are noted immediately south and west of the site, respectively.

1989 to 2020
The site is vacant. The site vicinity consists of vacant and undeveloped property, and sporadic single family residences. By at least 2009, commercial development is noted east and south of the site, and west of 215 Freeway. The property immediately north of the site is developed by at least 2020. No major changes to the site are noted. The site vicinity consists of commercial warehousing and retail.

B. BUILDING PERMIT REVIEW

Review of information provided by County of Riverside Arc GIS website indicated the Assessor's Parcel Numbers for the subject site are APN 314-170-020, 314-180-023, and 314-180-024. The recorded lot size for all of the above is approximately 20.28 acres. The legal description can be found in the Title report. The data can be found in the Appendix E.

According to County of Riverside Arc GIS, no buildings have existed on the parcels. However, as noted in the 1938 and 1949 aerial photographs, single family residences were noted in the southwest and northwest portion of the site. Based on the age of the structures, it is unlikely that records exist. No other information significant to this report was obtained from the Assessor's data.

C. SANBORN FIRE INSURANCE MAP REVIEW

ESGS requested Sanborn Fire Insurance Maps for the subject site; however, no maps were available for the subject site. The report can be found in Appendix E.

D. HISTORICAL TOPOGRAPHIC MAP REVIEW

Historical topographic maps were reviewed from EDR by ESGS. No significant additional information was revealed after review. The topographic maps can be found in Appendix C.

E. INTERVIEWS

As specified in ASTM E1527, interviews will be conducted with parties including present landowners and occupants, past landowners and occupants, and adjoining property owners, as appropriate and as available. ESGS interviewed Riverside County Department of Environmental Health, Riverside County Building and Safety, and the proposed buyer/property developer. No significant additional information was revealed after the interviews. The questionnaire can be found in Appendix F.

G. RECORDED LAND TITLE RECORDS

As specified in ASTM E1527 *recorded land title records* mean records of historical fee ownership, which may include leases, land contracts and AULs on or of the *property* recorded in the place where land title records are, by law or custom, recorded for the local jurisdiction in which the *property* is located (often such records are kept by a municipal or county recorder or clerk). Such records may be obtained from title companies or directly from the local government agency. Information about the title to the *property* that is recorded in a U.S. district court or any place other than where land title records are, by law or custom, recorded for the local jurisdiction in which the *property* is located, are not considered part of *recorded land title records*, because often this source will provide only names of previous *owners*, lessees, easement holders, etc., and little or no information about uses or occupancies of the *property*, but when employed in combination with another source *recorded land title records* may provide helpful information about uses of the *property*. This source cannot be the sole historical source consulted. If this source is consulted, at least one additional standard historical source must also be consulted. ESGS's performed a search of the Riverside County Assessor's office, the assessor's reports can be found in Appendix E.

A title report was not provided, and such a report typically does not list all documents related to the subject site, simply those that the title insurer wants to exclude from coverage and/or that are of potential interest to the transaction. Title reports may also be one method to evaluate the environmental liens search required by the ASTM E1527 standard, which is required to be performed by the report User. A liens/use limitation search by the User is required by the ASTM/AAI standard 180 days or less prior to acquisition of a property, but a general review of the above title report performed by ESGS did not reveal any significant additional information on the subject site.

H. DATA GAPS

As specified in ASTM E1527, data gaps are defined as "a lack or inability to obtain information required by the standards and practices listed in the regulation despite good faith efforts by the Environmental Professional or prospective landowner to gather such information". Data failure occurs when historical research does not identify standard historical sources that are "reasonably ascertainable" and "likely to provide useful information to identify prior uses of the property". Per ASTM E1527, the assessment must document data failure and give reasons why historical sources were not available or excluded (if applicable). Based on ESGS's research, no significant data gaps were identified for the subject site.

SECTION V.
AGENCY RECORDS REVIEW

In an effort to evaluate whether the subject site and/or nearby sites have reported USTs, hazardous waste generation, or hazardous material releases, regulatory information from the federal, state, and local agencies listed below were reviewed. The database report was compiled by a third-party database provider and is reportedly the most recent database information available from each agency. A copy of the database report is included in the Appendix D. According to the database provider, their search of the various databases conforms to ASTM E1527 Standards. However, the accuracy of the information provided by the agencies is not without error or omission, and the information listed is limited to that which was reported to or gathered by that agency. A limited discussion of the number of sites identified, and of their potential impact to the subject site, follows this page. In addition, ESGS may request state and/or local regulatory agency information for the subject site, targeting those agencies most likely to provide information useful for this Assessment. The primary databases reviewed, and their general search range criteria are below:

Federal Database	Search Range
USEPA NPL/Superfund databases:	Target Property to 1.0 mile
USEPA CERCLIS databases:	Target Property to 0.5 mile
USEPA RCRIS facilities databases	
Corrective Action Sites:	1.0 mile
TSD Facilities:	0.5 mile
Generators:	0.25 mile
USEPA ERNS database:	Target Property
US Engineering Controls:	0.5 mile
US Institutional Controls:	0.5 mile
US DOD/FUDS databases:	1.0 mile
US Brownfields:	0.5 mile
State/Local Database	**Search Range**
State Superfund databases:	
Hist Cal-Sites:	1.0 mile
CA Bond Exp. Plan	1.0 mile
State Landfills database:	0.5 mile
State Cortese	0.5 mile
State/Local LUST databases:	0.5 mile
State Spills databases:	
SLIC:	0.5 mile
CHMIRS:	Target Property
State/Local UST/AST databases:	0.25 mile
State Liens database:	Target Property
State Deed database:	0.5 mile
State VCP database:	0.5 mile
State EnviroStor/Response databases:	1.0 mile
State HAZNET database:	Target Property
Local Haz-Mat/Cleanup databases:	Target Property

A. REVIEW OF FEDERALLY REPORTED ENVIRONMENTAL DATA

The review of the federal environmental databases listed below attempts to identify environmental problem sites, activities, and occurrences from the records of the U.S. Environmental Protection Agency (USEPA). The detailed listing, and a map showing the location of the sites relative to the subject site, is included in the Appendix D.

National Priorities List (NPL) of Superfund Sites:
The NPL is the USEPA's database of hazardous waste sites currently identified and targeted for priority cleanup action under the Superfund program. This search includes Proposed NPL sites, Delisted NPL sites, and NPL Recovery sites. NPL sites may encompass relatively large areas. As such, polygon coverage for the site boundaries (for a majority of the NPL sites), as produced by the EPA may be provided. A search of the NPL database identified the following number of Superfund sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
One	None

March Airforce Base is listed on this database. This facility is listed on the database due to tetrachloroethylene (PCE) and trichloroethylene (TCE) contamination in the groundwater. The facility is currently undergoing investigations to determine the extent of contamination. The southern portion of the Superfund site is located more than 0.90-miles north and potentially cross gradient of the site. Based on the location and distance, this facility would not be considered an environmental concern to the site.

National Priorities List Liens (NPL Liens):

The NPL Liens database contains a list of filed notices of Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. A search of the NPL Liens database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980:
Mandated as part of the 1980 Superfund Act, the CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) list is

an EPA compilation of the sites investigated, or currently being investigated, for a release or potential release of a regulated hazardous substance under the CERCLA regulations. A search of the CERCLIS and CERCLIS-NFRAP (no further remedial action planned) databases identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

RCRIS Corrective Action (RCRIS-CA) Sites:

The RCRIS-CA report contains information pertaining to hazardous waste handling facilities which have conducted, or are currently conducting corrective actions, as regulated by the Resource Conservation and Recovery Act. A search of the RCRIS-CA list identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Resource Conservation and Recovery Act Information System (RCRIS) Treatment, Storage, and Disposal (TSD) Facilities:

The RCRA program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRIS-TSD facilities database is the composite of reporting facilities that transport, store, or dispose of controlled or hazardous waste. Identification on this list does not indicate that a site has impacted the environment. A search of the RCRIS-TSD database identified the following number of facilities within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

RCRIS Generator Facilities:

The RCRIS program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRIS generator facilities database (large and small quantity generators and various derivations) is the composite of reporting facilities that generate hazardous waste. Identification on these lists does not indicate that a site has impacted the environment. A search of the RCRIS facilities databases identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
Three	None

These facilities are listed on non-generators Based on the location, direction, type of facility, and/or regulatory listing, these facilities would not be considered an environmental concern to the site.

Emergency Response Notification System (ERNS):

The ERNS database is the historical record of releases of hazardous substances reported to the USEPA. A search of the ERNS database identified the following number of releases within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

EPA Engineering and Institutional Controls (US ENG/INST CONTROL) Sites:

These databases include listings of sites with engineering or institutional controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are required as part of the institutional controls. A search of the US ENG/INST CONTROL database(s) identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Department of Defense (DOD) Sites:

The Unites States Geological Survey (USGS) maintains the DOD database, which consists of federally owned or administered lands, administered by the DOD, that have an area equal to or greater than 640 acres of the United States, Puerto Rico, and the US Virgin Islands. A search of the DOD database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
One	None

March Airforce Base is listed on this database. This facility is listed on the database due to tetrachloroethylene (PCE) and trichloroethylene (TCE) contamination in the groundwater. The facility is currently undergoing investigations to determine the extent of contamination. The southern portion of the Superfund site is located more than 0.90-miles north and potentially cross gradient of the site. Based on the location and distance, this facility would not be considered an environmental concern to the site.

Formerly Used Defense Sites (FUDS):

The U.S. Army Corps of Engineers database contains a listing of locations of Formerly Used Defense Sites (FUDS) where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions. A search of the FUDS database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

US Brownfields Sites (Brownfields):

The US Brownfields site includes brownfields properties addressed by Cooperative Agreement Recipients (CAR) and brownfields properties addressed by Targeted Brownfields Assessments (TBA). EPA's TBA program is designed to help states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfields. Cooperative Agreement Recipients (states, political subdivisions, territories, and Indian tribes) become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the USEPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities. A search of the Brownfields database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

CERCLA Lien Information (LIENS 2):

A Federal Superfund Lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. A search of the LEINS 2 database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Facility Index System (FINDS) sites:

The FINDS Report is a computerized inventory of all facilities that are regulated or tracked by the U.S. Environmental Protection Agency. These facilities are assigned a unique identification number that serves as a cross-reference for databases in the EPA's program system. Identification on this database does not indicate that a site has impacted the environment. A search of the FINDS database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

B. REVIEW OF STATE-REPORTED ENVIRONMENTAL DATA

Results of the state regulatory records search follow. Each section begins with a general description of the databases searched and the corresponding responsible state or local agency. The detailed listing, and a map showing the location of the sites relative to the subject site, is included in the appendix.

State Hazardous Waste Site (SHWS) Databases:

State Hazardous Waste Site records are the states' equivalent to CERCLIS. The Department of Toxic Substances Control (DTSC) Hist Cal-Sites database contains potential or confirmed hazardous substance release properties. The Calsites database was created by the Department of Toxic Substances and Control (DTSC), but DTSC no longer up-dates the Calsites database. The Calsites database was replaced by the EnviroStor database (see EnviroStor section below). The CA Bond Expenditure Plan database contains the Department of Health Services site-specific expenditure plan, which is the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. A search of the State Hazardous

Waste Site database(s) identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Solid Waste Facilities, Landfills and Recycling Facilities:

The State Solid Waste Facilities and Landfills and Recycling databases include an inventory of active, closed, and inactive solid waste disposal facilities, landfills, refuse transfer stations, and recycling facilities (non-landfill sites). A search of these databases identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Historical Cortese Database:

The Historical Cortese list contains hazardous waste and substance sites compiled pursuant to Assembly Bill 3750 (Cortese, Chapter 1048, Statutes of 1986). The information included in this list was compiled with information from the California DTSC, the State Water Resources Control Board, and the California Waste Management Board. This database contains primarily LUST sites, although other types of sites may be included. A search of the Cortese database identified the following number of sites within the specified search range:

Number of Facilities	Number Listed at Subject Site
None	None

Leaking Underground Storage Tanks (LUSTs):

State and/or local agencies maintain inventories of LUSTs (also known as LTANKS) in a statewide database. A search of the LUST database identified the following number of reported LUST sites within the specified search range:

Number of Facilities	Number Listed at Subject Site
None	None

State/Local Spills Databases:
The Spills, Leaks, Investigations, and Cleanup (SLIC) Cost Recovery Listing program is designed to protect and restore water quality from spills, leaks, and similar discharges. The database(s) included in this section are the states' equivalent to the ERNS report and generally contain information for reported hazardous material/waste surface or groundwater contamination release investigations reported in that state or locality. The California Hazardous Material Incident Report System (CHMIRS) database contains information on reported hazardous waste material incidents (accidental releases or spills). A search of these databases identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Underground Storage Tanks (USTs)/Aboveground Storage Tanks (ASTs):

USTs are regulated under Subtitle I of the RCRA (as well as various state regulations) and must be registered with the State Underground Storage Tank Program. These are registered USTs only, and identification on this list(s) does not necessarily indicate that the site has impacted the environment. This search includes review of the Active UST Facilities (UST) database, Facility Inventory Database (CA FID UST), Hazardous Substance Storage Container Database (HIST UST), and SWEEPS UST Listing database (SWEEPS UST). Also potentially included in this section are sites identified on historic UST databases that are no longer maintained. The AST database is the State Water Resources Control Board's Hazardous Substance Storage Container Database for registered ASTs. A search of these UST and AST databases identified the following number of sites within the specified search range:

Number of Adjoining Properties	Number Listed at Subject Site
One	None

One adjoining facility listed on the database is located downgradient from the site. The facility is not listed on databases indicative of a release. Based on the distance, direction, and regulatory status, this facility would not be considered an environmental concern to the site.

Environmental Liens Listing (LIENS):

The Department of Toxic Substances Control's (DTSC) LIENS database includes a listing of property locations with environmental liens for California where DTSC is a lien holder. A search of the LIENS database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Deed Restriction Listing (DEED):

The Department of Toxic Substances Control's (DTSC) DEED database includes a listing of Site Mitigation and Brownfields Reuse Program (SMBRP) Facility Sites with Deed Restrictions and Hazardous Waste Management Program Facility Sites with Deed/Land Use Restrictions. The SMBRP list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active, and some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners. A search of the DEED database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Voluntary Cleanup Program (VCP):

The Department of Toxic Substances Control's (DTSC) VCP database contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that DTSC oversee the investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs. A search of the VCP database identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

State Response/EnviroStor Databases:

The Department of Toxic Substances Control's (DTSC) RESPONSE database identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. The DTSC's Site Mitigation and Brownfields Reuse Program's (SMBRPs) EnviroStor database identifies sites that have reported contamination or sites for which there may be reason to investigate further. The database includes the following site types: Federal Superfund Sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in Cal-Sites, and provides additional site information, including, but not limited to, identification of formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. A search of the Response and EnviroStor databases identified the following number of sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
One	None

One facility is located at a distance greater than 0.25-mile south of and potentially cross gradient from the site. Based on the distance and direction, this facility would not be considered an environmental concern to the site.

State and/or Local Agency Generators (HAZNET):

The HAZNET data is extracted from copies of hazardous waste manifests kept by the Cal-EPA, DTSC. These manifests track hazardous wastes from generation source to the point of ultimate disposal. Permit data is generally culled from local agency database(s) for hazardous material handlers and generators. Identification on these lists does not indicate that a site has impacted the environment and the data has not always been verified for accuracy by the DTSC or local agencies. A search of the HAZNET and Permit data identified the following number of reported sites within the specified database search range:

Number Listed at Subject Site
None

National Pollutant Discharge Elimination System (NPDES) Database:

The National Pollutant Discharge Elimination System (NPDES) includes sites that have had or have a permit for the discharge of wastewater or stormwater issued by the Regional Water Quality Control Board or a local agency (e.g., Public Works Department). The NPDES data identified the following number of reported sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

State and/or Local Agency Air Emissions Database (EMI):

The EMI data is extracted from permits for air emissions kept by the state or local air resources agency. Identification on these lists does not indicate that a site has impacted the environment. A search of the EMI database identified the following number of reported sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

Notify 65 Database:

Notify 65 listings generally indicate that some type of release and/or groundwater impact have occurred which was required to be reported under Proposition 65 rules. A search of the Notify 65 data identified the following number of reported sites within the specified database search range:

Number of Facilities	Number Listed at Subject Site
None	None

EDR Historical Auto Stations, Historical Cleaners, & Manufactured Gas Plants Databases:

These databases include former gas stations, auto repair shops, dry cleaners, Laundromats, and manufactured gas plants that are typically no longer active. Identification on these databases does not necessarily indicate that such activities actually occurred at that site or that a site has impacted the environment. A search of these databases identified the following number of sites within the specified database search range:

Type of Facility	Number of Facilities	Number Listed at Subject Site
Historical Auto Stations	None	None
Historical Cleaners	None	None
Historical Manufactured Gas	None	None

Orphan Unplottable Sites:
"Orphan" sites are those which could not be plotted by the database provider using conventional geo-coding methods, typically because the information provided in the original government database was unclear, incorrect or missing. A listing of orphan sites (if any) appears at the end of the database, immediately after the last plottable site description.

ESGS reviewed the orphan list for sites with the same name as the subject site (if applicable) and/or the same or similar property address. This review is inherently limited by the incomplete and/or possibly incorrect data reported in the orphan listings. For orphans apparently not related to the subject site, only those obviously located adjoining or within a short distance that may affect the property are discussed. Orphan sites which are also listed in the plotted section are not re-discussed. ESGS's review of the orphan list revealed no obvious sites of concern listed at or adjoining the subject site.

C. LOCAL AGENCY RECORDS SEARCH

The following is a discussion of the results of ESGS's written records requests, online regulatory database review, and/or personal/telephone contacts (as applicable) made to state and/or local government agencies in an effort to obtain potential information relevant to the subject site:

Riverside County Department of Environmental Health:

ESGS contacted the Riverside County Department of Environmental Health in an effort to evaluate whether hazardous material incidents, USTs, and/or LUSTs have been reported at the subject site. According to Riverside County Department of Environmental Health, USTs and ASTs have not been utilized and no hazardous materials have been stored. The subject site does not maintain a legal address; therefore, records were not obtained. Based on this information, this would not be considered an environmental concern.

California EPA - Department of Toxic Substances Control (DTSC):

ESGS also reviewed CalEPA-DTSC's Hazardous Waste Tracking System (HWTS) online database (http://hwts.dtsc.ca.gov) in an effort to identify potentially hazardous waste generation/disposal activities associated with the subject site address. Because the property does not have an HWTS identification number, there is no way to track hazardous material incidents.

GeoTracker – State Water Board incident tracking system:

ESGS also reviewed the GeoTracker Tracking System online database (http://geotracker.waterboards.ca.gov) in an effort to identify potential environmental activities associated with the subject site. The report revealed no incidents at or in the immediate vicinity of the subject site.

California Department of Water Resources:

ESGS contacted the California Department of Water Resources in an effort to evaluate whether any state listed water wells or water resources are located on the subject site address. According to the website, there are no water wells located on the subject site.

D. TRIBAL RECORDS SEARCH

According to ASTM E1527, records for local and tribal records shall be checked to satisfy all appropriate inquiry for this assessment. The following is a discussion of the results of ESGS's written records requests, online regulatory database review, and/or personal/telephone contacts (as applicable) made to tribal governmental agencies in an effort to obtain potential information relevant to the subject site: The subject site is not located on tribal property and therefore no inquiry was necessary.

SECTION VI.
SITE VISIT OBSERVATIONS

A. SITE STRUCTURE CHARACTERISTICS

At the time of the site visit, the site consists of a vacant undeveloped land. Pictures of the site can be found in Appendix A.

B. WASTEWATER AND STORMWATER MANAGEMENT

No wastewater was observed at the subject site.

Storm water and surface run-off from the subject site and adjacent properties enter the natural storm water and flood control conveyance systems. A storm drain channel was noted in the southeast portion of the site. No staining or evidence of a release was observed.

C. POTABLE WATER SUPPLY

The site is undeveloped, and no evidence of municipal water source (water line) was observed at the time of the site reconnaissance.

E. BUSINESS OPERATIONS DESCRIPTION

According to the Riverside County Building and Safety, the subject site zone is commercial. ESGS's research indicates no dry cleaners, gasoline stations, military bases, or major manufacturing operations have occupied the subject site.

SECTION VII.
HAZARDOUS MATERIAL/WASTE OBSERVATIONS

A. HAZARDOUS MATERIALS HANDLING AND STORAGE

No hazardous materials were observed at the subject site. No significant staining or spillage was observed in any of the areas inspected. No other significant hazardous materials handling, or storage were observed on the subject site during the site visit.

B. WASTESTREAM GENERATION, STORAGE AND DISPOSAL

During the inspection, no hazardous waste generation, storage, or improper hazardous waste disposal was observed on the subject site. Stained or discolored sinks, drains, drip pads, or sumps were not observed. Additionally, significant spills or staining were not observed at the subject site.

C. SOLID WASTE DISPOSAL

During the inspection, no solid waste generation, storage, or improper solid waste disposal was observed on the subject site.

D. ABOVEGROUND STORAGE TANKS (ASTs)

Visual or physical indicators of current or former ASTs were not observed at the subject site during the site visit.

E. UNDERGROUND STORAGE TANKS (USTs)

As discussed in the Section V (Agency Records Review) of this report, no USTs were reported at the subject site. In addition, no visual or physical evidence of current or past USTs were discovered during the site visit in the readily visible areas of the property. In particular, ESGS searched for: fill pipes, vent pipes, manways, manholes, access covers, and or concrete pads not homogeneous with surrounding surfaces, concrete built-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps.

SECTION VIII.
OTHER POTENTIAL ISSUES OF CONCERN

A. PCB-CONTAINING EXTERIOR ELECTRICAL TRANSFORMERS

A pad-mounted transformer was located in the center of the property, on the west side of Nevada Road. A pole-mounted transformer was noted in the northwest corner of the site. No staining or evidence of a release was observed. Based on this information, no environmental concerns were identified.

B. OTHER PCB-CONTAINING INTERIOR OR EXTERIOR EQUIPMENT

During the on-site inspection, no evidence was observed of any equipment likely containing PCB-contaminated fluid (e.g., interior electric transformers, hydraulic elevators, hydraulic hoists/lifts, hydraulic loading dock ramps, other fluid containing equipment, etc.).

C. SUSPECT ASBESTOS-CONTAINING MATERIALS (ACMs)

No buildings are present; therefore, asbestos-containing materials (ACMs) are not likely present.

D. LEAD-BASED PAINT (LBP)

No buildings are present; therefore, lead-based paint (LBP) is not likely present.

E. LEAD IN DRINKING WATER

Federal regulations limit lead in publicly supplied water to no more than 15 parts per billion (ppb), however, the most common source of lead in tap water is from interior plumbing systems (piping, connections, faucets, etc.). Children are the most susceptible to possible health effects from consuming lead-tainted drinking water. Due to the nature of the property being undeveloped, no observations of these sources were observed. The presence or absence of elevated lead concentrations in the water can only be confirmed through laboratory testing, and such analysis is beyond the scope of this assessment.

F. AIR QUALITY

Unusual smells, noxious odors, or visual emissions were not observed during the inspection of the subject site. However, these observations are general in nature and should not be construed as an air quality assessment.

G. RADON

According to the USEPA, the general area of the site has a predicted average indoor screening level of less than the EPA guideline action level of 4.0 picoCuries per liter of air (EPA Radon

Zone Level of 1). Therefore, based upon the reported subsurface characteristics of the area, the subject site exhibits no potential for high-level radon exposure.

H. RAILROAD RIGHTS-OF-WAY

There are several potential environmental risks associated with railroad rights-of-way, including the usage of herbicides, pesticides, petroleum materials and related heavy metals (e.g. arsenic) to maintain the tracks, as well as the potential spillage of hazardous materials from railcars. During the site visit, no railroad rights-of-way, spurs, or related features were observed immediately adjoining the subject site.

SECTION IX.
ADJOINING PROPERTY OBSERVATIONS

As discussed below, based upon limited observations of the adjoining properties from publicly accessible locations, as well as a review of federal, state, and local environmental databases, none of the adjoining properties appeared to have significantly environmentally impacted the subject site at this time.

A. ADJOINING PROPERTIES MATERIALS STORAGE

Visual observations of the portions of the adjoining properties visible from the subject site or public roadways did not indicate the exterior storage of hazardous materials or wastes. No indications of spillage or staining were observed in the observable exterior areas of these sites. Additionally, no obvious indications of improper hazardous material storage or unusual or suspicious materials handling, or storage practices were observed.

B. ADJOINING PROPERTIES WASTESTREAM DISPOSAL

No unusual or suspicious waste stream disposal activities were observed on the portions of the adjoining properties visible from the subject site or public roadways.

SECTION X.
STATEMENT OF THE ENVIRONMENTAL PROFESSIONALS

This Assessment has been performed for the exclusive use and benefit of the addressee(s) identified on the cover of this report, or agents directly specified by it (them), for the transaction at issue concerning the subject site described in this report. This Assessment shall not be used or relied upon by others without the prior written consent of Earth-Strata, Inc. and of the addressee(s) named on the cover of this report.

STATEMENT OF QUALITY ASSURANCE

I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in § 312.10 of 40 CFR 312 and 12.13.2. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. The conclusions contained within this Assessment are based upon site conditions I readily observed and were reasonably ascertainable and present at the time of the site visit. The findings and conclusions represent my best professional opinion and judgment. In addition, the conclusions and recommendations stated in this report are based upon personal observations made by E-S and upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

STATEMENT OF QUALITY CONTROL

The objective of this Phase I ESA was to ascertain the potential presence or absence of RECs that could impact the subject site, as delineated in the scope of services and limitations identified in this report and in the service agreement. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted environmental consulting practices, in order to accomplish the stated objective.

Signature of Professional Geologist – *William T. Doyle, #8601:*

William T Doyle
Signature/Environmental Assessor

Acronyms and Abbreviations

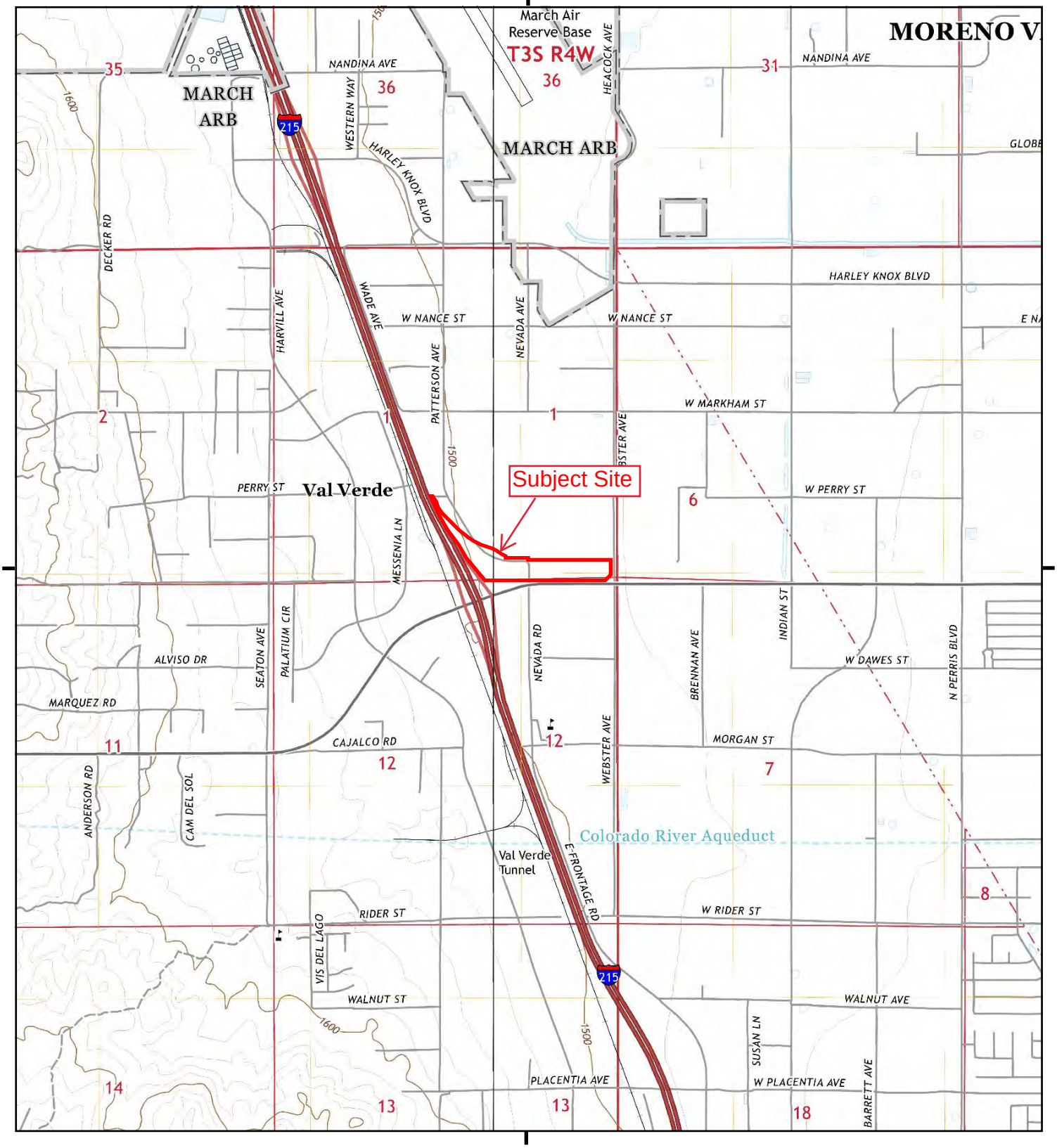
Below are several abbreviations that E-S uses to describe various projects.

ACM	Asbestos-containing material
AQMD	Air Quality Management District
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
bgs	Below Ground Surface
BTEX	Benzene-toluene-ethylbenzene-xylene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CFR	Code of Federal Regulations
CHMIRS	California Hazardous Material Incident Report System
COC's	Chemicals of Concern
CDL	Clandestine Drug Labs
DEP	Department of Environmental Protection
DOD	Department of Defense
DOE	Department of Energy
DTSC	Department of Toxic Substance Control
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FINDS	Facility Index System
FUDS	Formerly Used Defense Sites
HMIRS	Hazardous Materials Information Reporting System
ICIS	Integrated Compliance Information System
LBP	Lead Based Paint
LDL	Laboratory Detection Limit
LEL	Lower Explosion Limit
LUCIS	Land Use Control Information System
LUST	leaking underground storage tank
MCL	Maximum Contaminant Level
MLTS	Material License Tracking System
mg/L	Milligrams per liter
MSDS	Material Safety Data Sheet
MTBE	Methyl Tertiary Butyl Ether
NFA	No Further Action
NPL	National Priority List
ODI	Open Dump Inventory
PADS	PCB Activity Database System
PCB	Poly Chlorinated Biphenyl
PEL	Permissible Exposure Limit
Ppb	Parts per billion
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
REC	Recognized environmental condition
RWQCB	Regional Water Quality Control Board
SVE	Soil Vapor Extraction
Ug/L	Micrograms per Liter
UST	Underground storage tank
VOC	Volatile Organic Compound

Appendix A

Historical Topo Map

2018



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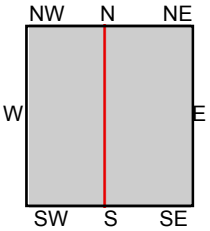


TP, Perris, 2018, 7.5-minute
SW, Steele Peak, 2018, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

SITE PHOTOS

PHASE I ENVIRONMENTAL SITE ASSESSMENT

RAMONA EXPRESSWAY, PERRIS, CALIFORNIA

Southeast corner of the site at the intersection of Ramona Expressway and North Webster Avenue.

East boundary of the site, looking west.

Southwest portion of the site, looking west-southwest.

Site, looking north.

Nevada Road located in the center of the site, looking northwest.

Southern boundary of the site, looking east.

Eastern portion of the site, looking southwest.

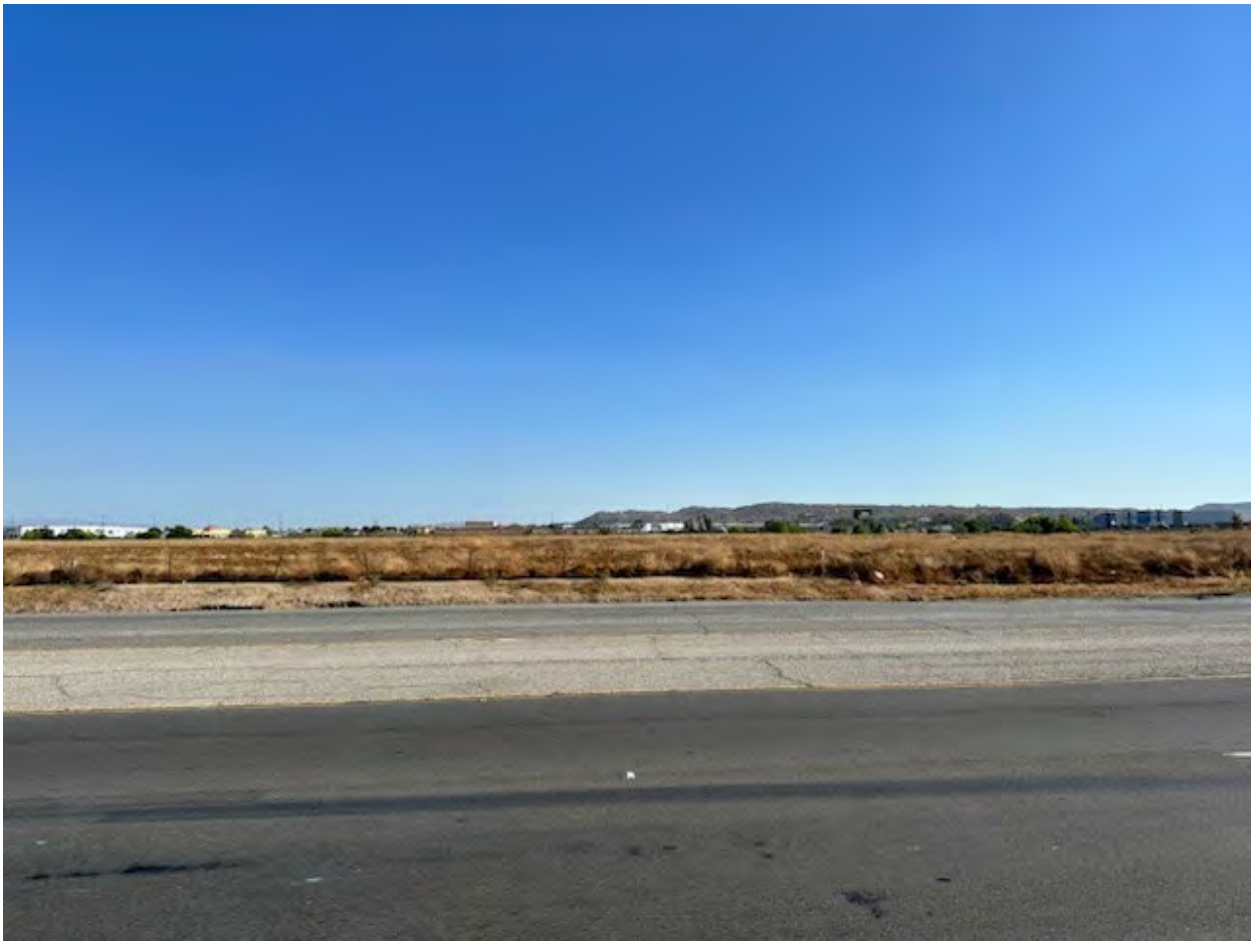
Northwest end of site, looking south towards Ramona Expressway. Pole mounted transformer in background.

Pad-mounted transformer located in the center of the site along Nevada Road.

Storm drain located in the southeast corner of the site.

Ferguson Plumbing Supply Company located immediately north of the site.

Chevron Gasoline Station located east of the site beyond North Webster Avenue.



Undeveloped property located south of the site, beyond Ramona Expressway.

Appendix B

Vacant Property

Ramona Expressway

Perris, CA 92571

Inquiry Number: 7396039.8

July 20, 2023

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

07/20/23

Site Name:

Vacant Property
Ramona Expressway
Perris, CA 92571
EDR Inquiry # 7396039.8

Client Name:

Earth Strata Geotechnical Services, Inc
42184 Remington Avenue
Temecula, CA 92590
Contact: Tim Doyle

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2020	1"=500'	Flight Year: 2020	USDA/NAIP
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1997	1"=500'	Acquisition Date: January 01, 1997	USGS/DOQQ
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: September 06, 1990	USDA
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: February 24, 1985	USDA
1978	1"=500'	Flight Date: September 20, 1978	USDA
1974	1"=500'	Flight Date: November 06, 1974	USGS
1967	1"=500'	Flight Date: May 15, 1967	USDA
1961	1"=500'	Flight Date: June 14, 1961	USDA
1953	1"=500'	Flight Date: August 28, 1953	USDA
1949	1"=500'	Flight Date: May 08, 1949	USDA
1938	1"=500'	Flight Date: June 14, 1938	USDA

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EDR

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= 500'
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EDR

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EDR

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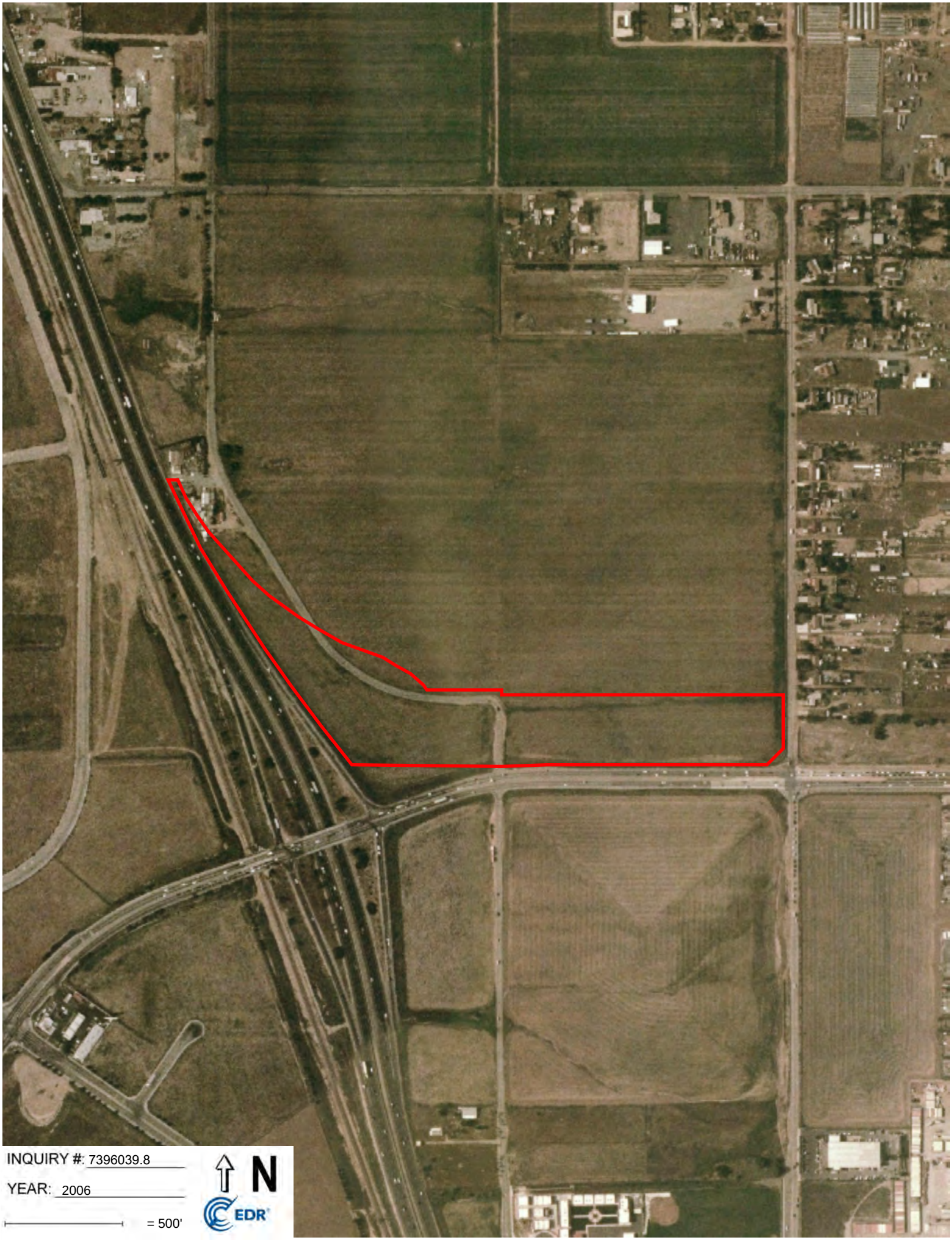
EDR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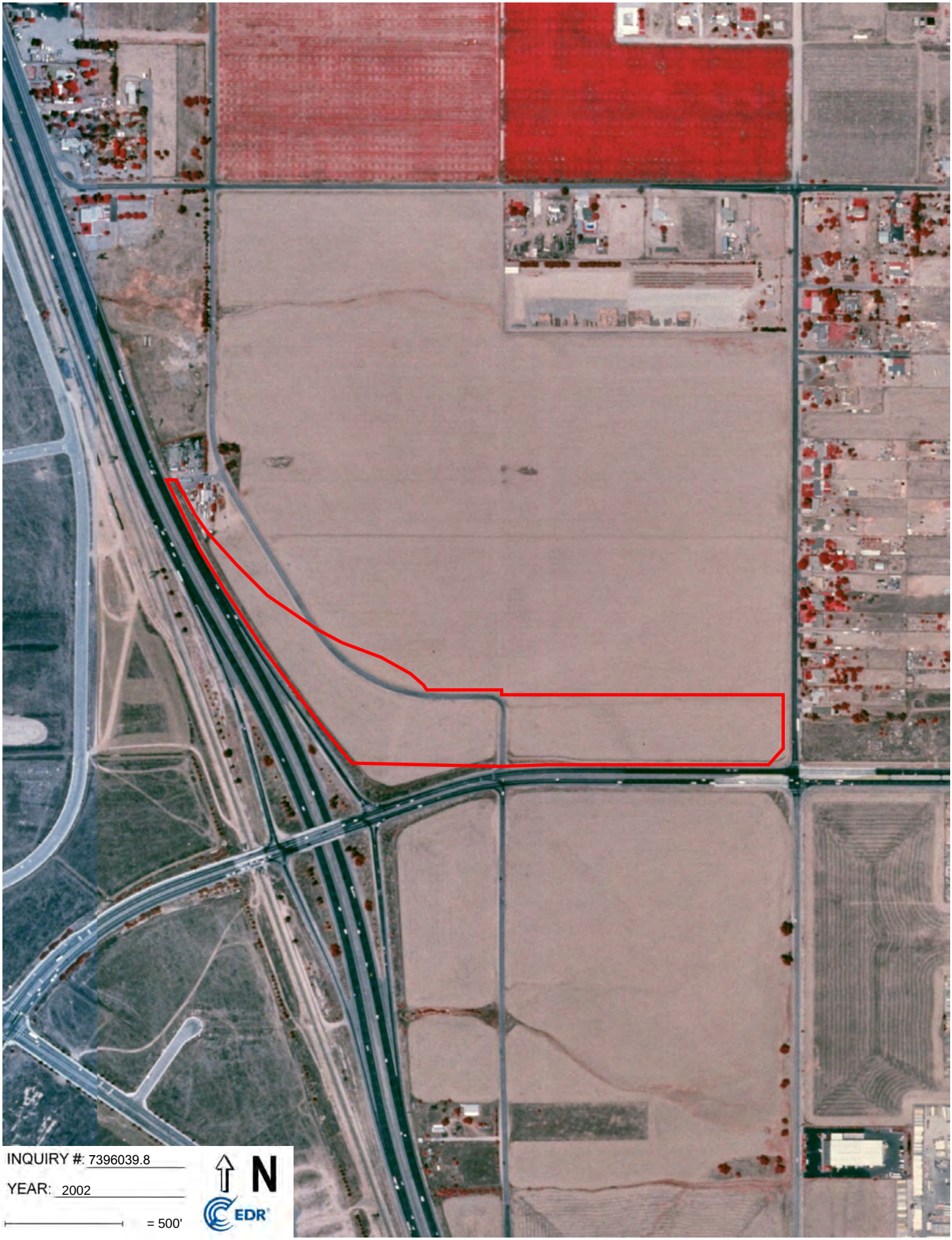
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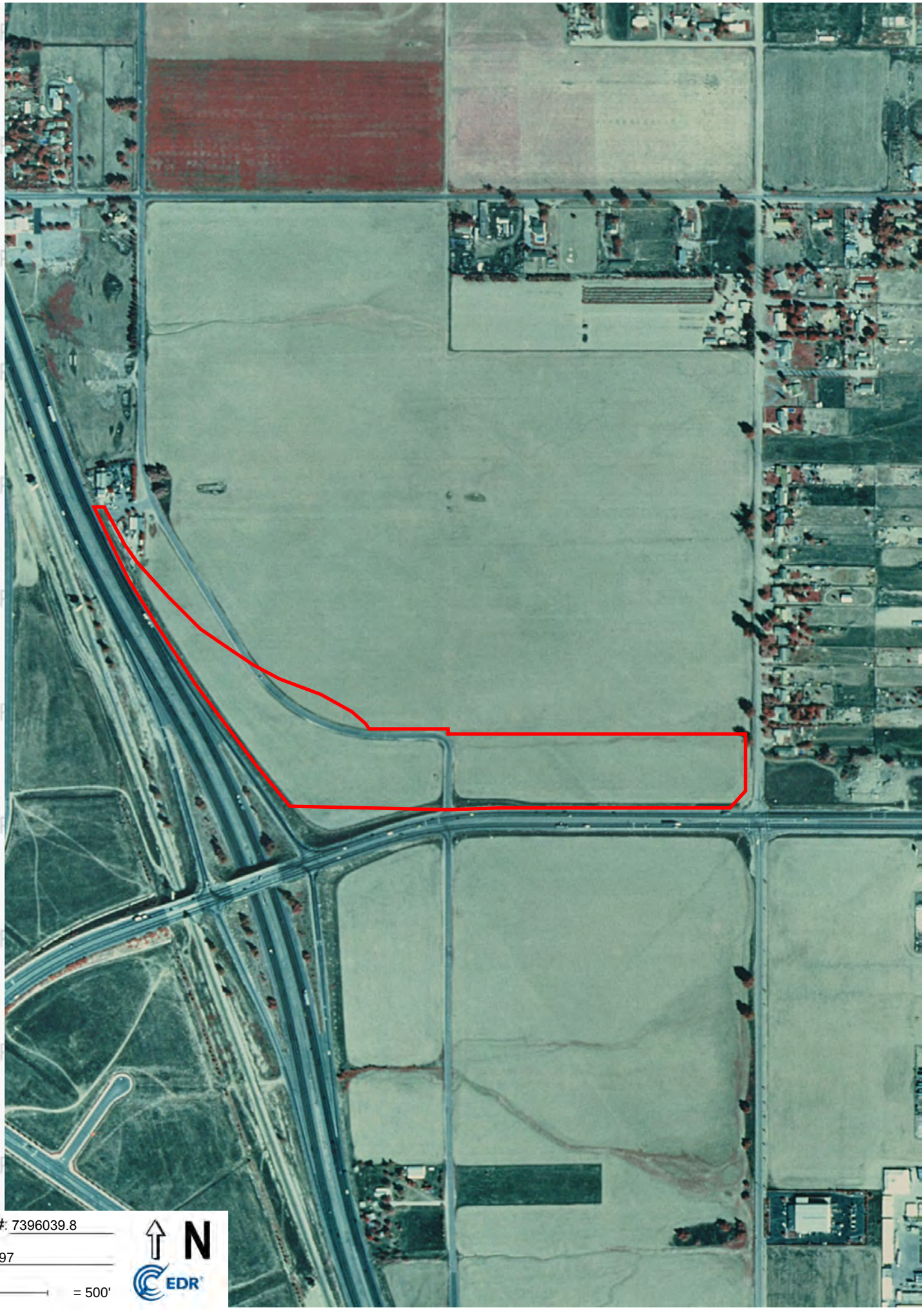

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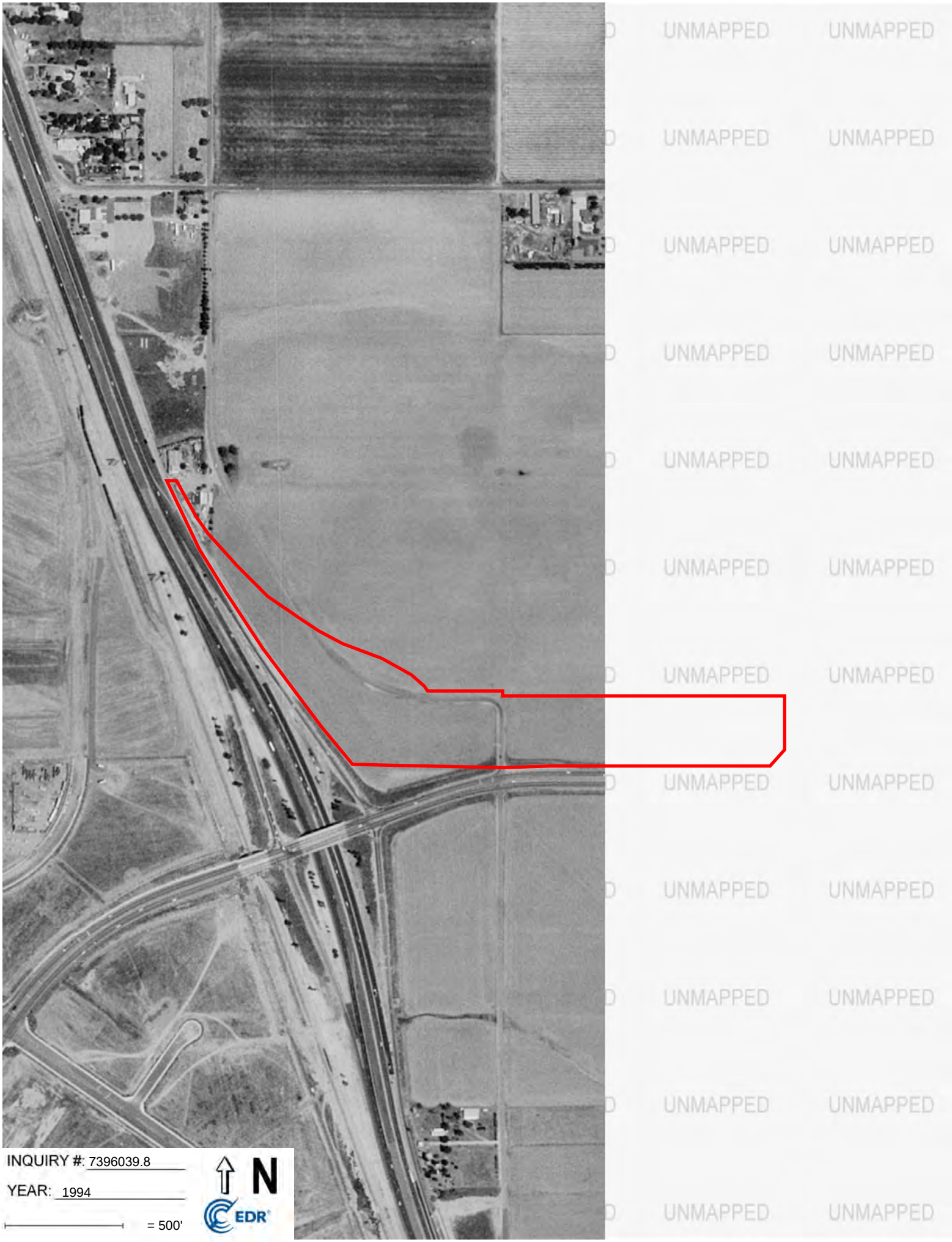
EDR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EDR

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EDR

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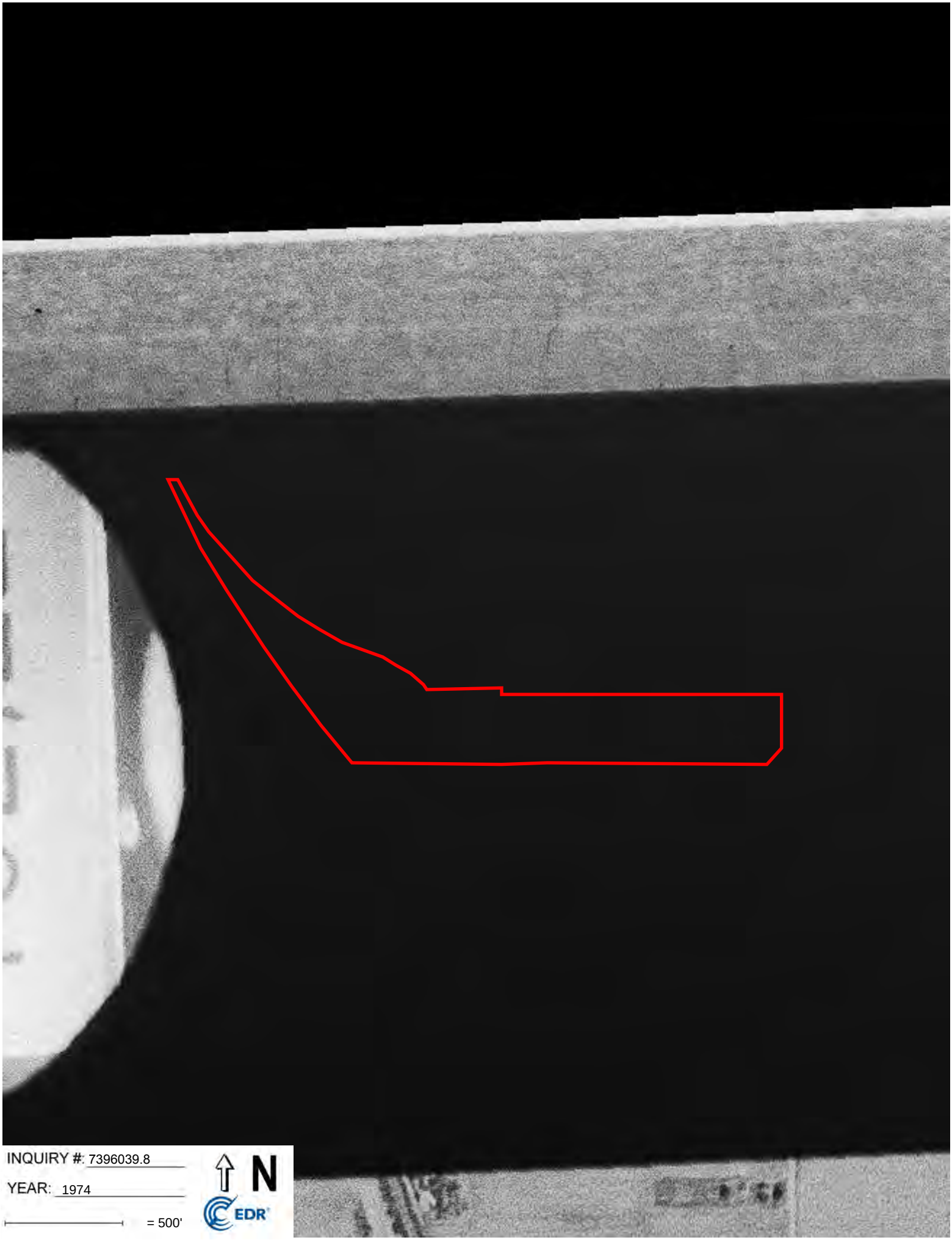
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EDR

Appendix C

Vacant Property

Ramona Expressway

Perris, CA 92571

Inquiry Number: 7396039.4

July 20, 2023

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

07/20/23

Site Name:	Client Name:
Vacant Property	Earth Strata Geotechnical Services, Inc
Ramona Expressway	42184 Remington Avenue
Perris, CA 92571	Temecula, CA 92590
EDR Inquiry # 7396039.4	Contact: Tim Doyle

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Earth Strata Geotechnical Services, Inc were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# Perris Gateway

Project: Vacant Property

Coordinates:

Latitude:	33.845218 33° 50' 43" North
Longitude:	-117.248178 -117° 14' 53" West
UTM Zone:	Zone 11 North
UTM X Meters:	477039.79
UTM Y Meters:	3745021.97
Elevation:	1493.00' above sea level

Maps Provided:

2018	1947
2015	1943
2012	1942
1979	1901
1978	
1973	
1967	
1953	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets

Perris
2018
7.5-minute, 24000

Steele Peak
2018
7.5-minute, 24000

2015 Source Sheets

Perris
2015
7.5-minute, 24000

Steele Peak
2015
7.5-minute, 24000

2012 Source Sheets

Perris
2012
7.5-minute, 24000

Steele Peak
2012
7.5-minute, 24000

1979 Source Sheets

Perris
1979
7.5-minute, 24000
Aerial Photo Revised 1978

Topo Sheet Key

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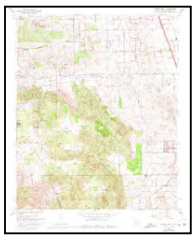
1978 Source Sheets

Steele Peak
1978
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Steele Peak
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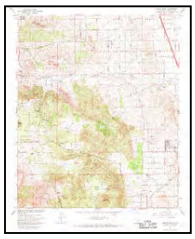
Aerial Photo Revised 1973

Perris
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1967 Source Sheets



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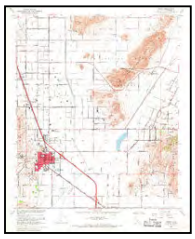


Perris
1967
7.5-minute, 24000
Aerial Photo Revised 1966

1953 Source Sheets

Steele Peak
1953
7.5-minute, 24000
Aerial Photo Revised 1951

Perris
1953
7.5-minute, 24000
Aerial Photo Revised 1951

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets

RIVERSIDE
1947
15-minute, 50000

1943 Source Sheets

PERRIS
1943
15-minute, 62500

1942 Source Sheets

Perris
1942
15-minute, 62500
Aerial Photo Revised 1939

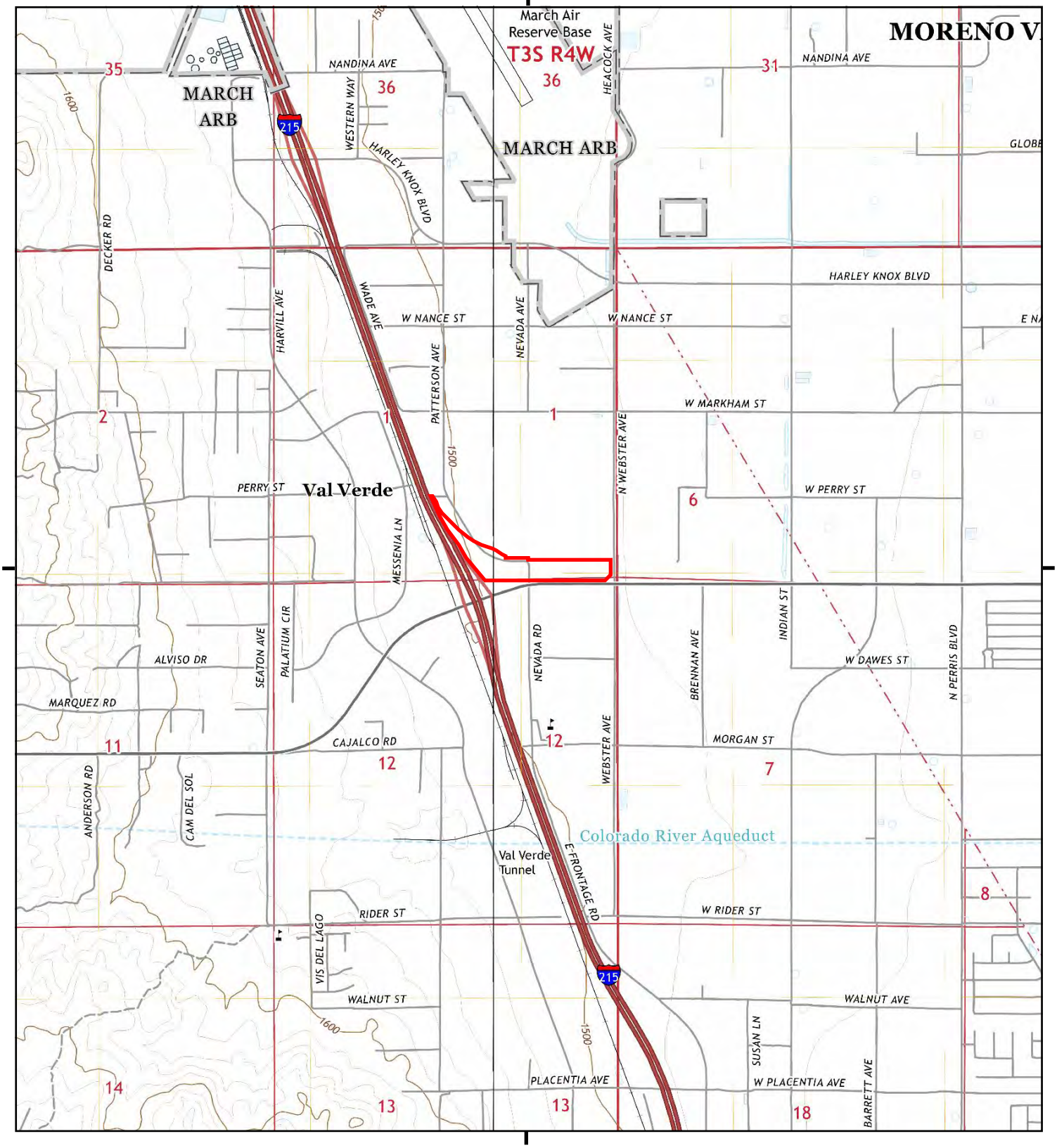
Riverside
1942
15-minute, 62500
Aerial Photo Revised 1939

1901 Source Sheets

Riverside
1901
15-minute, 62500

Historical Topo Map

2018



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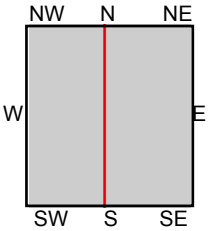


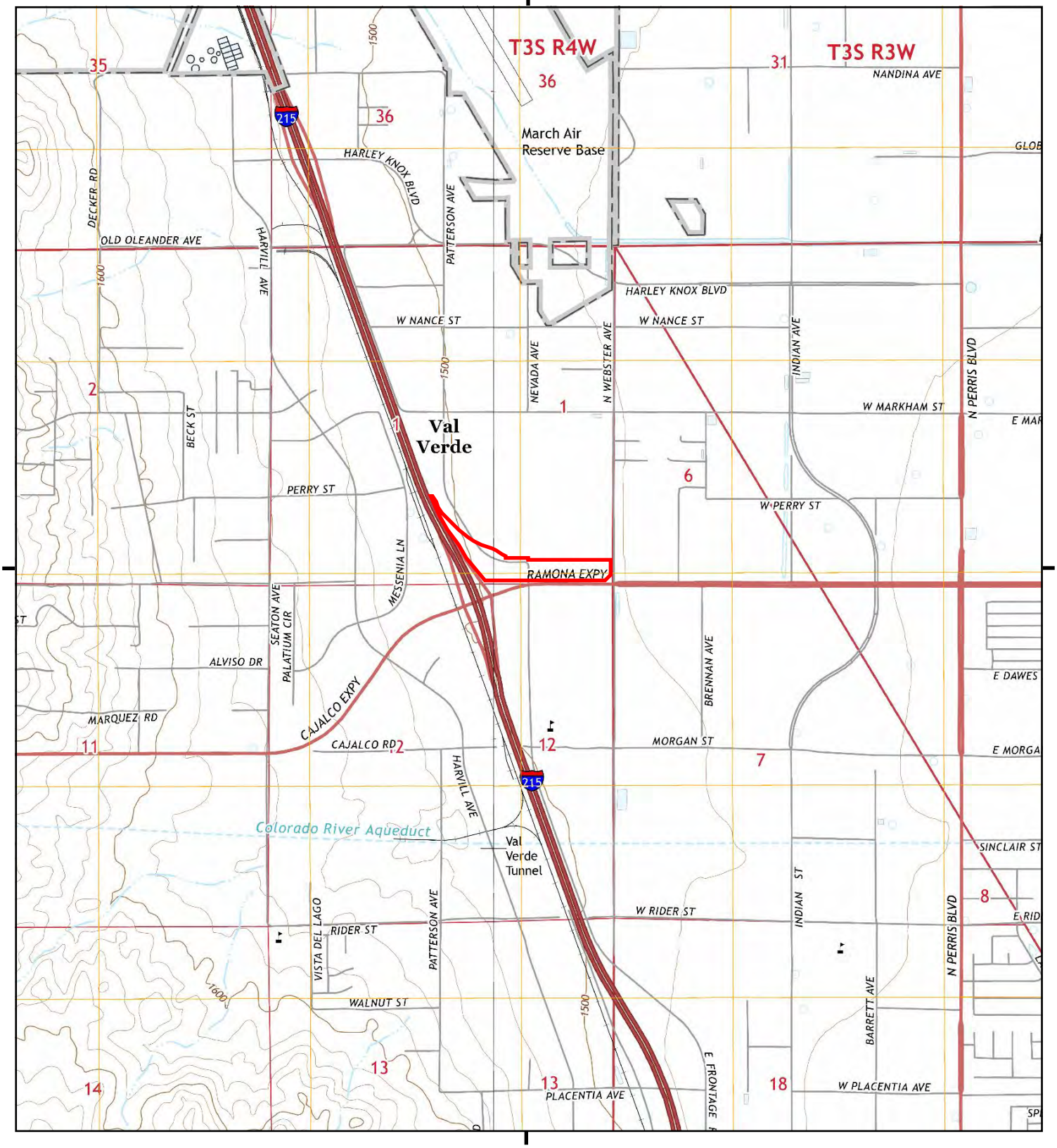
TP, Perris, 2018, 7.5-minute
SW, Steele Peak, 2018, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

2015



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W E
SW S SE

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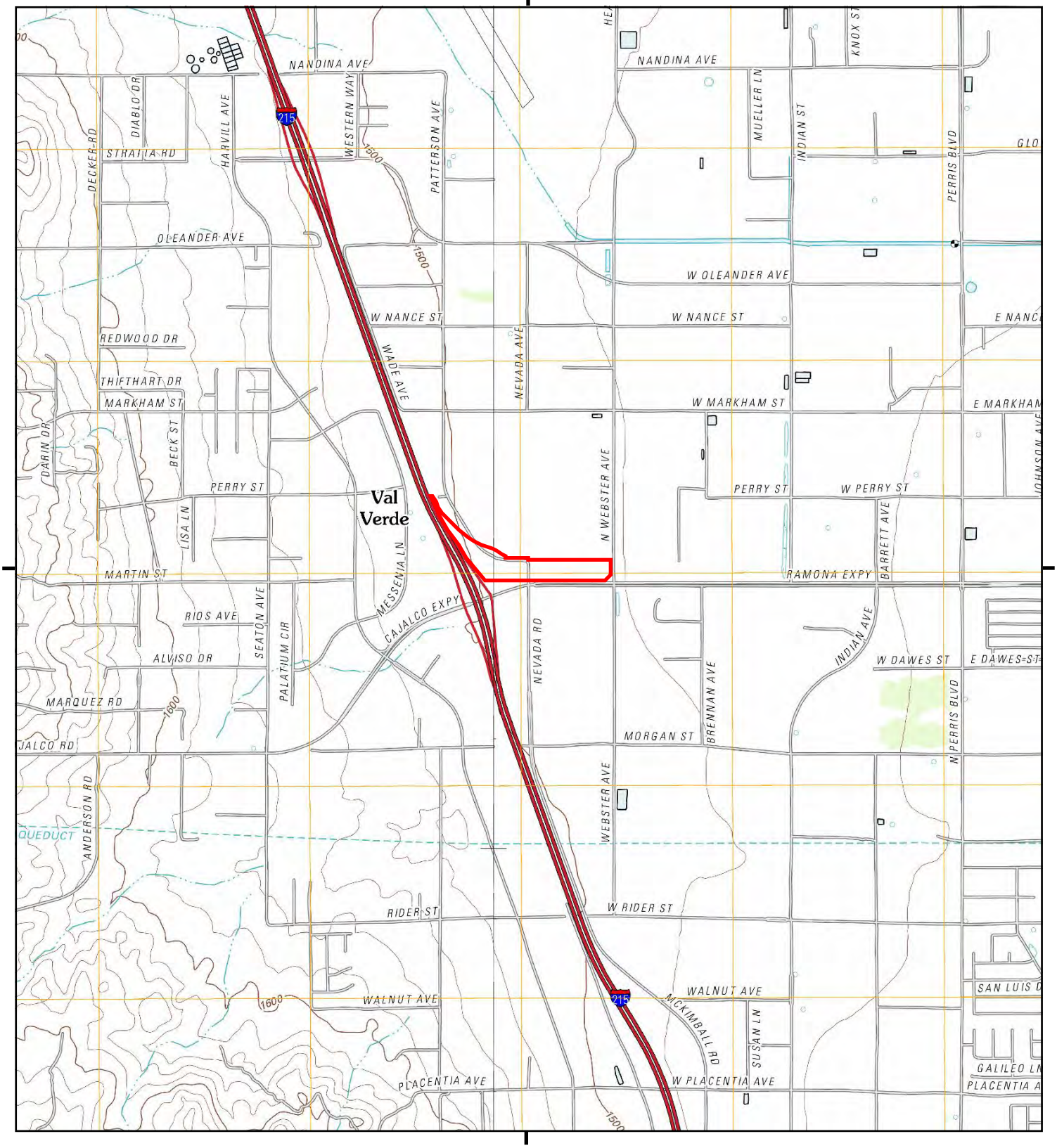
SW, Steele Peak, 2015, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

2012



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SW S SE

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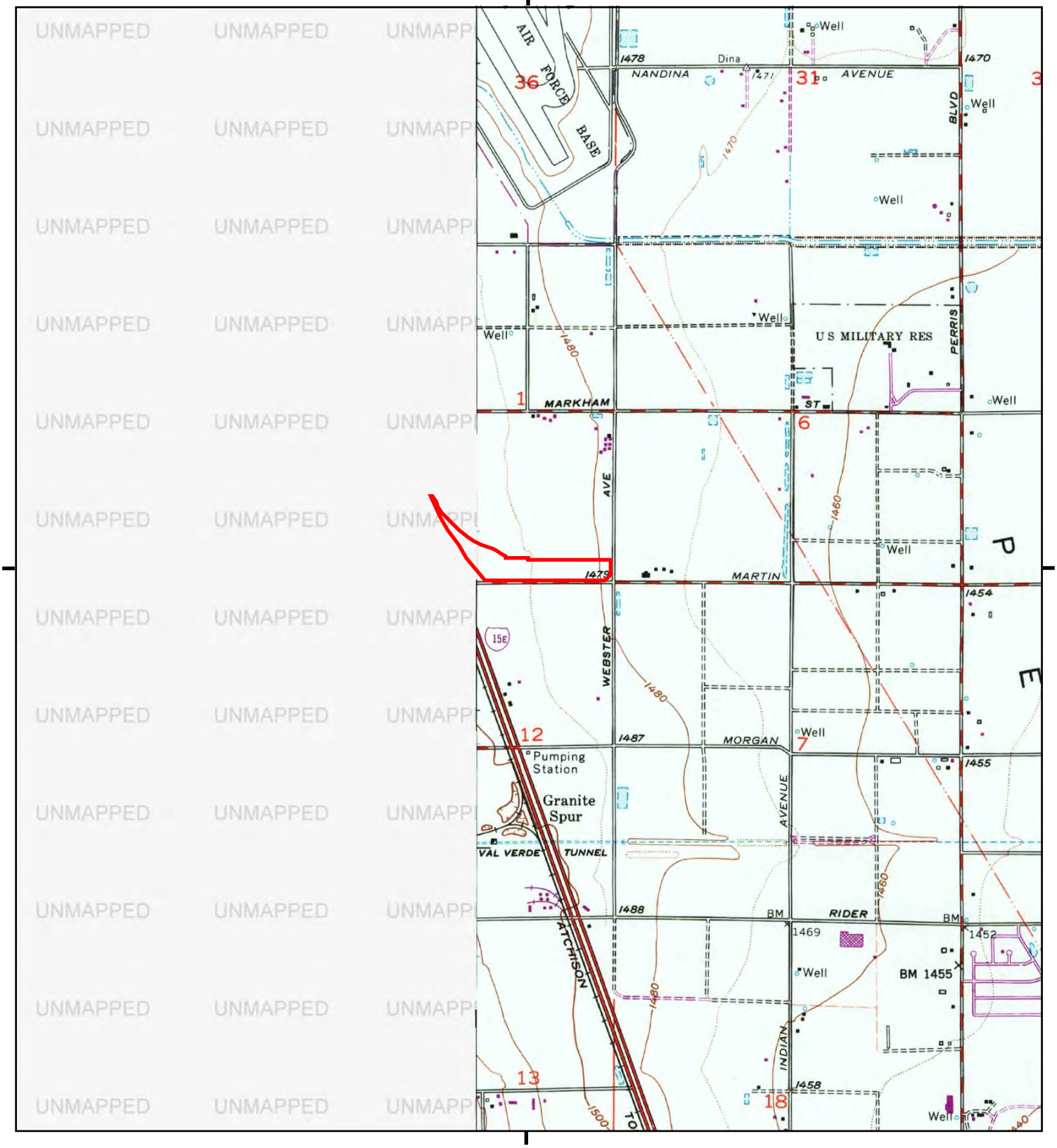
SW, Steele Peak, 2012, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

1979



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

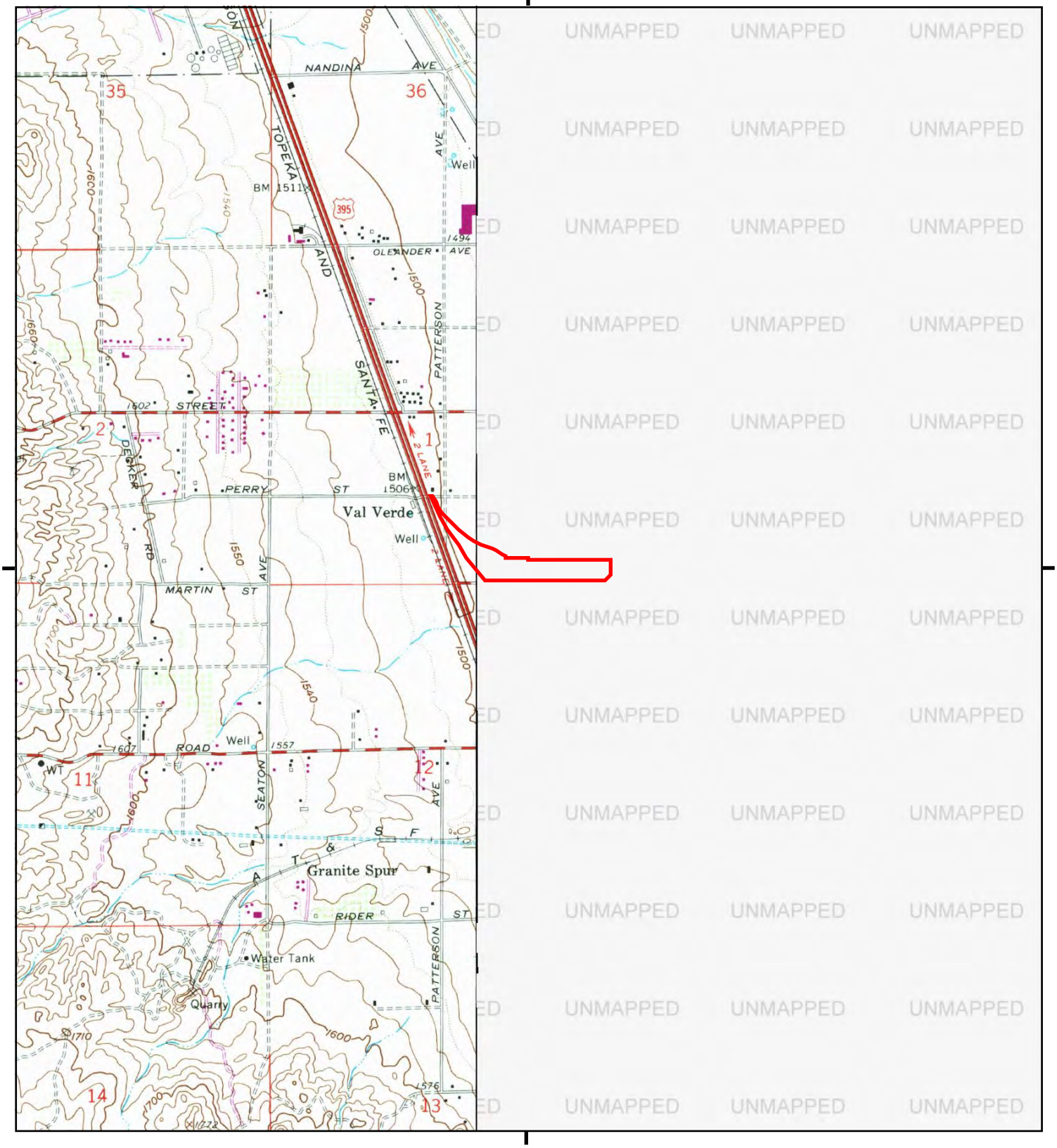
TP, Perris, 1979, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

1978



This report includes information from the following map sheet(s).

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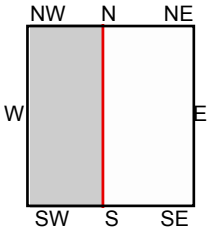


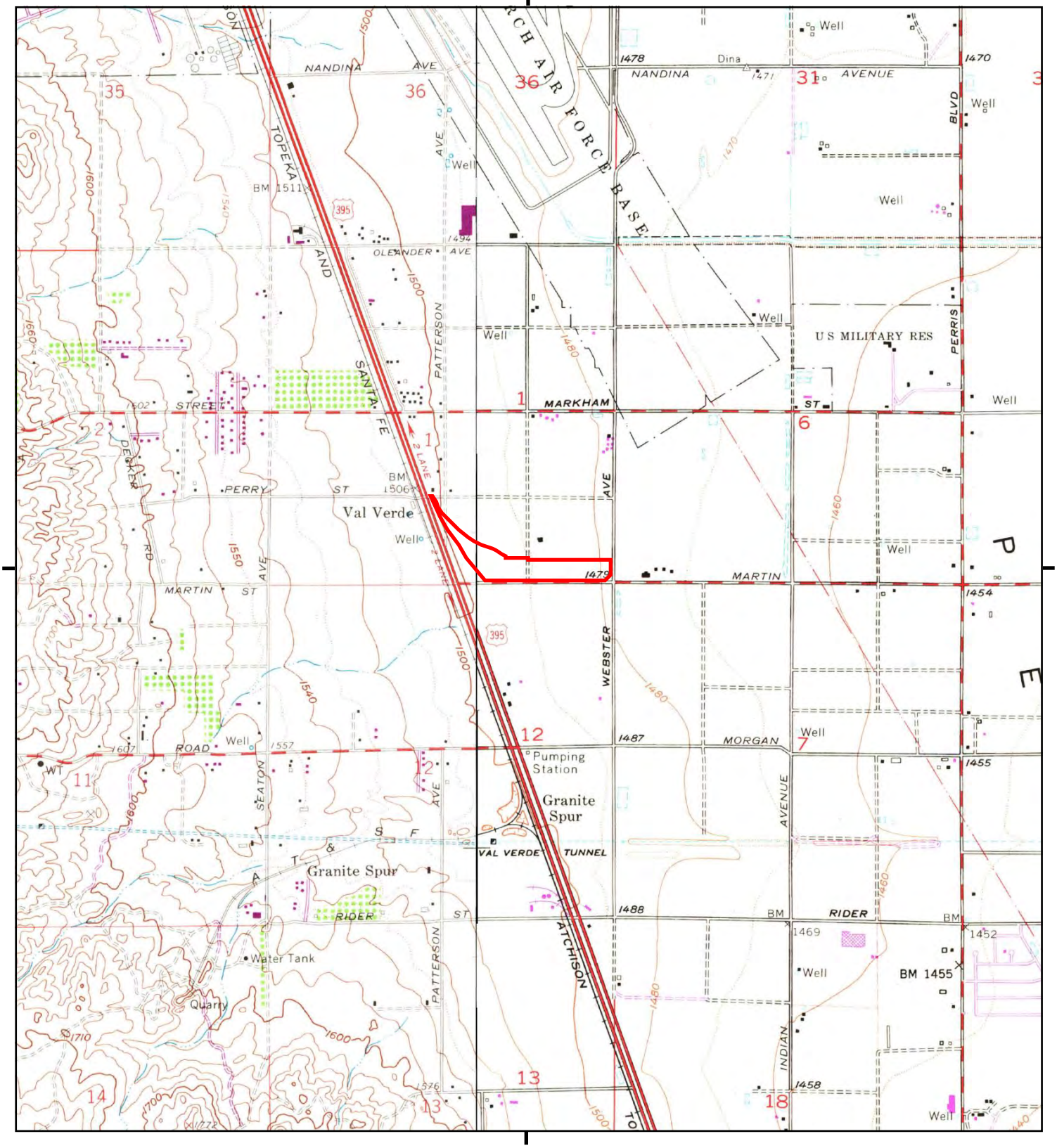
SW, Steele Peak, 1978, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

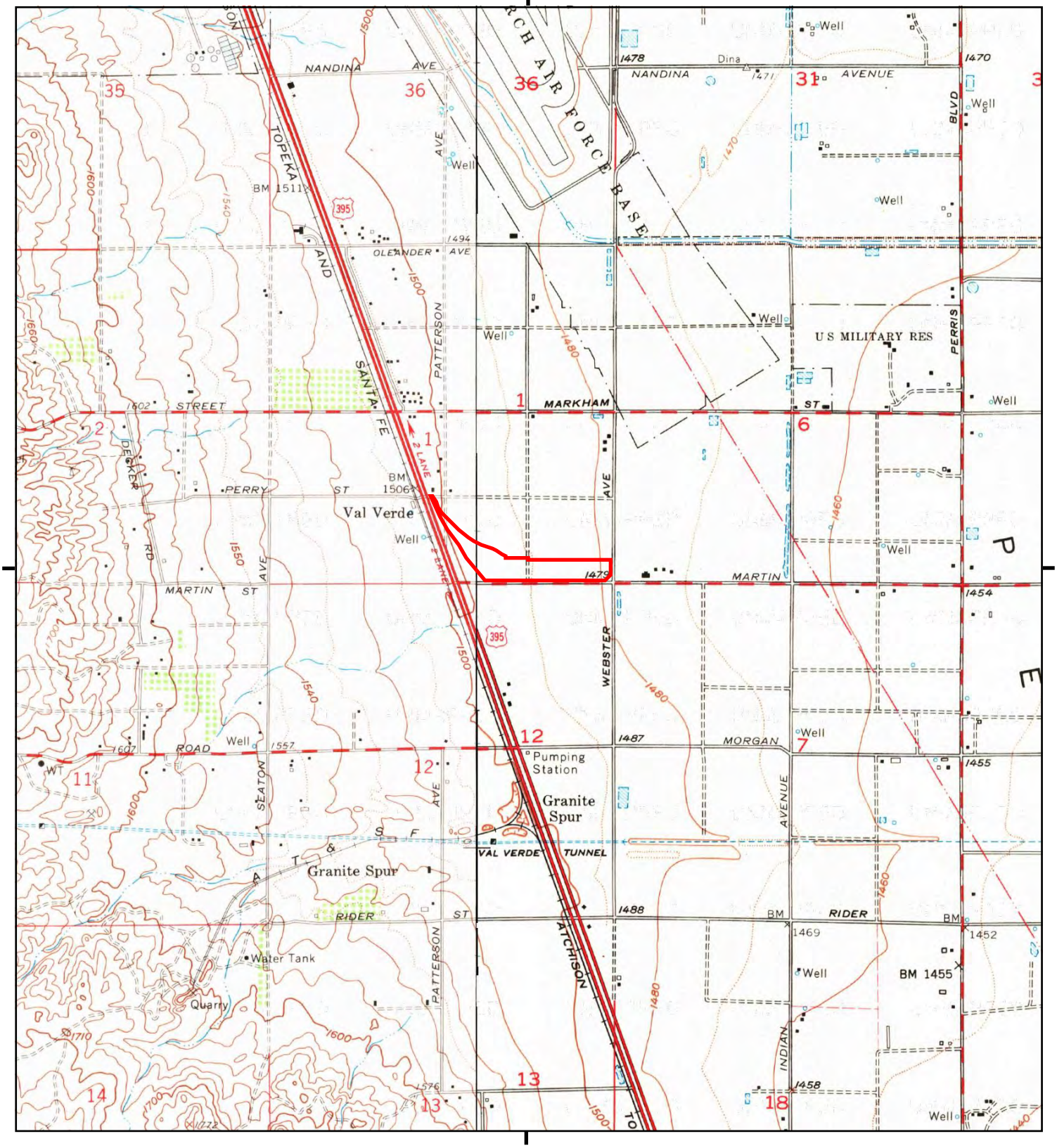
TP, Perris, 1973, 7.5-minute
SW, Steele Peak, 1973, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

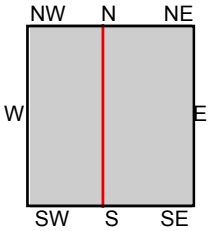
Historical Topo Map

1967



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



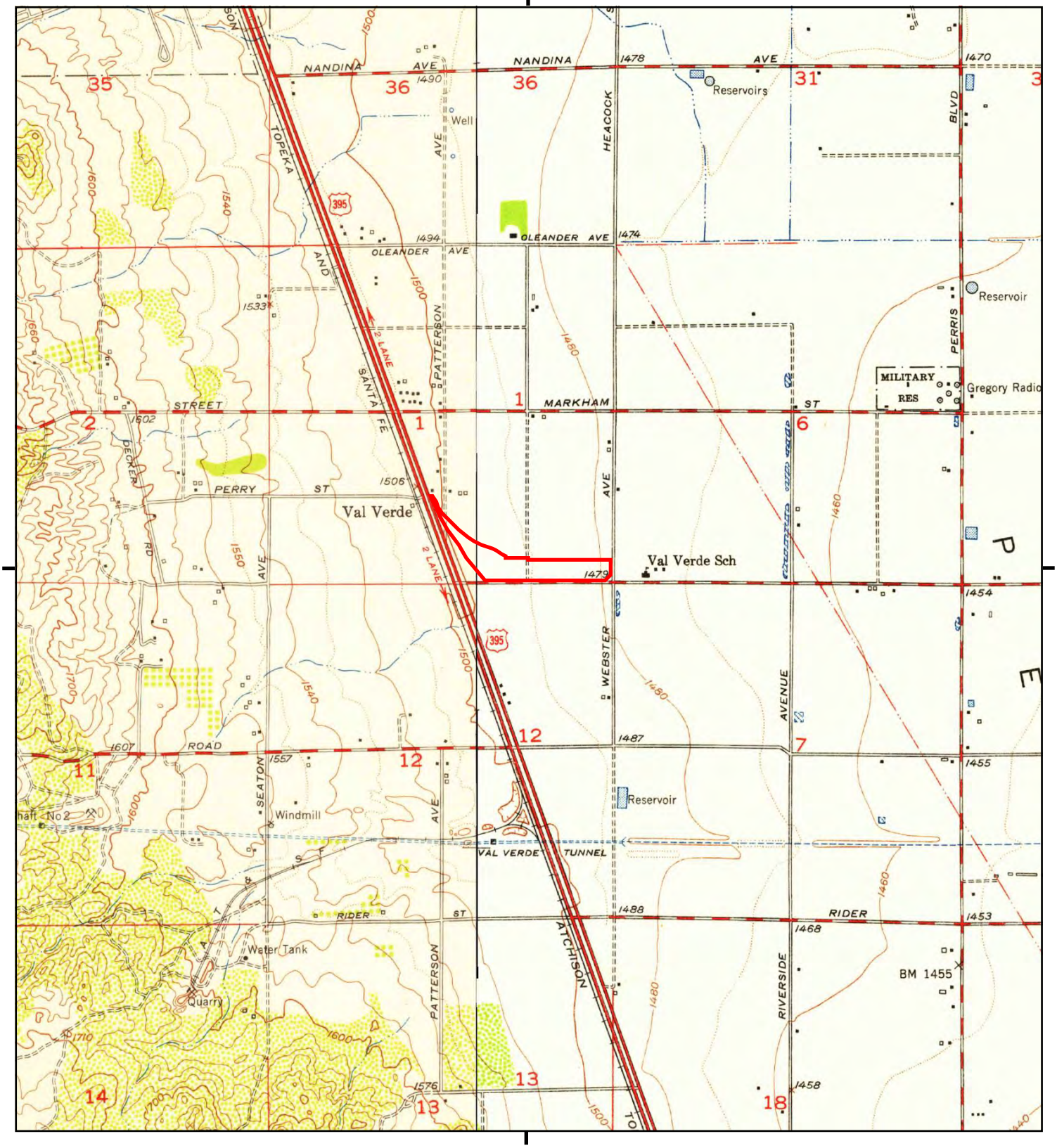
TP, Perris, 1967, 7.5-minute
SW, Steele Peak, 1967, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

1953



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

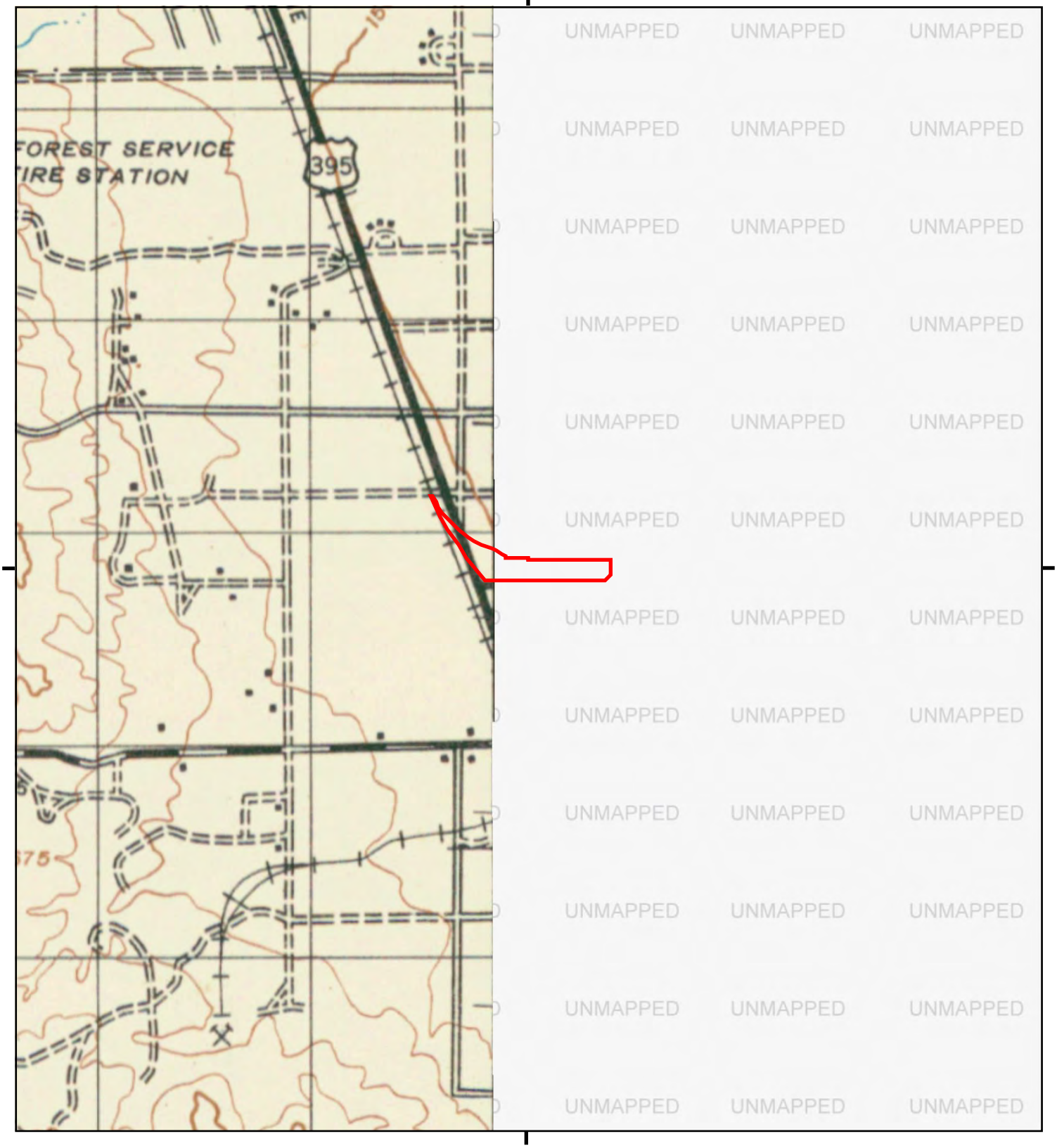
TP, Perris, 1953, 7.5-minute
SW, Steele Peak, 1953, 7.5-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

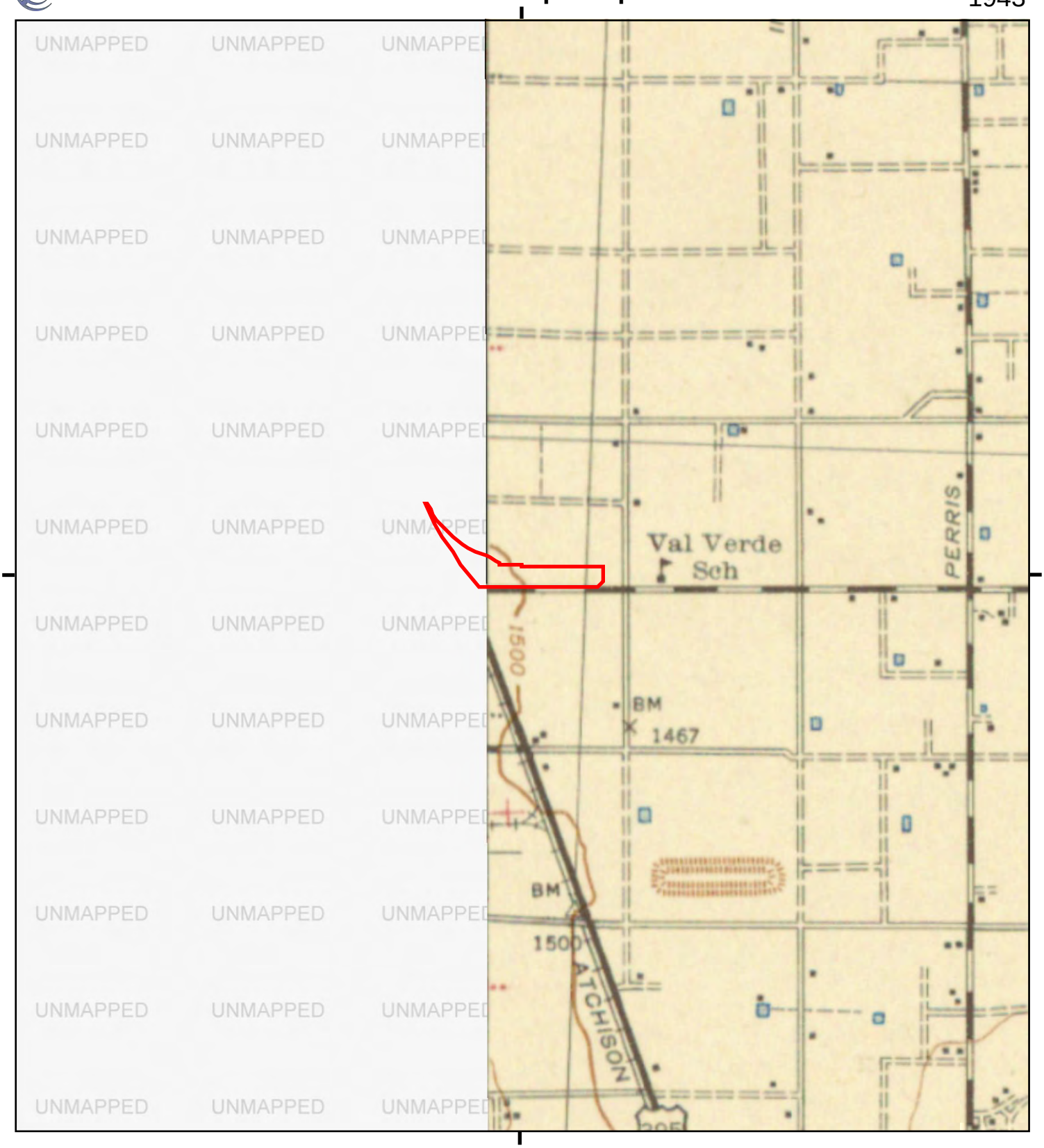
W, RIVERSIDE, 1947, 15-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

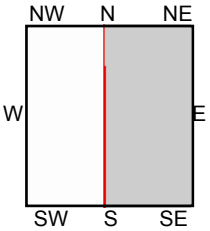
Historical Topo Map

1943



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



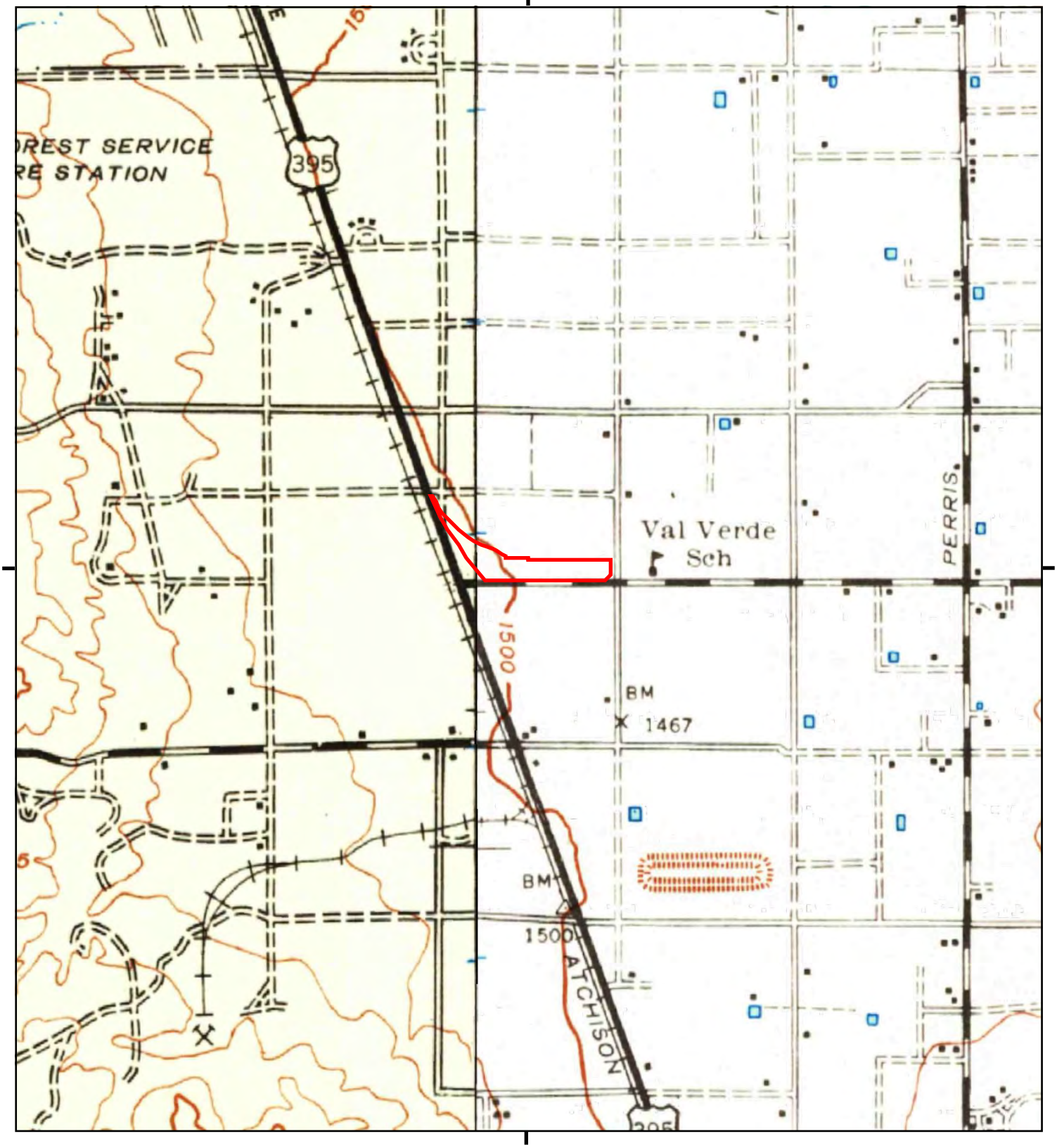
TP, PERRIS, 1943, 15-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

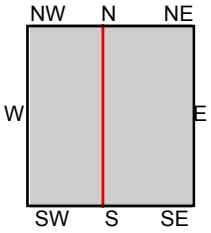
Historical Topo Map

1942



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



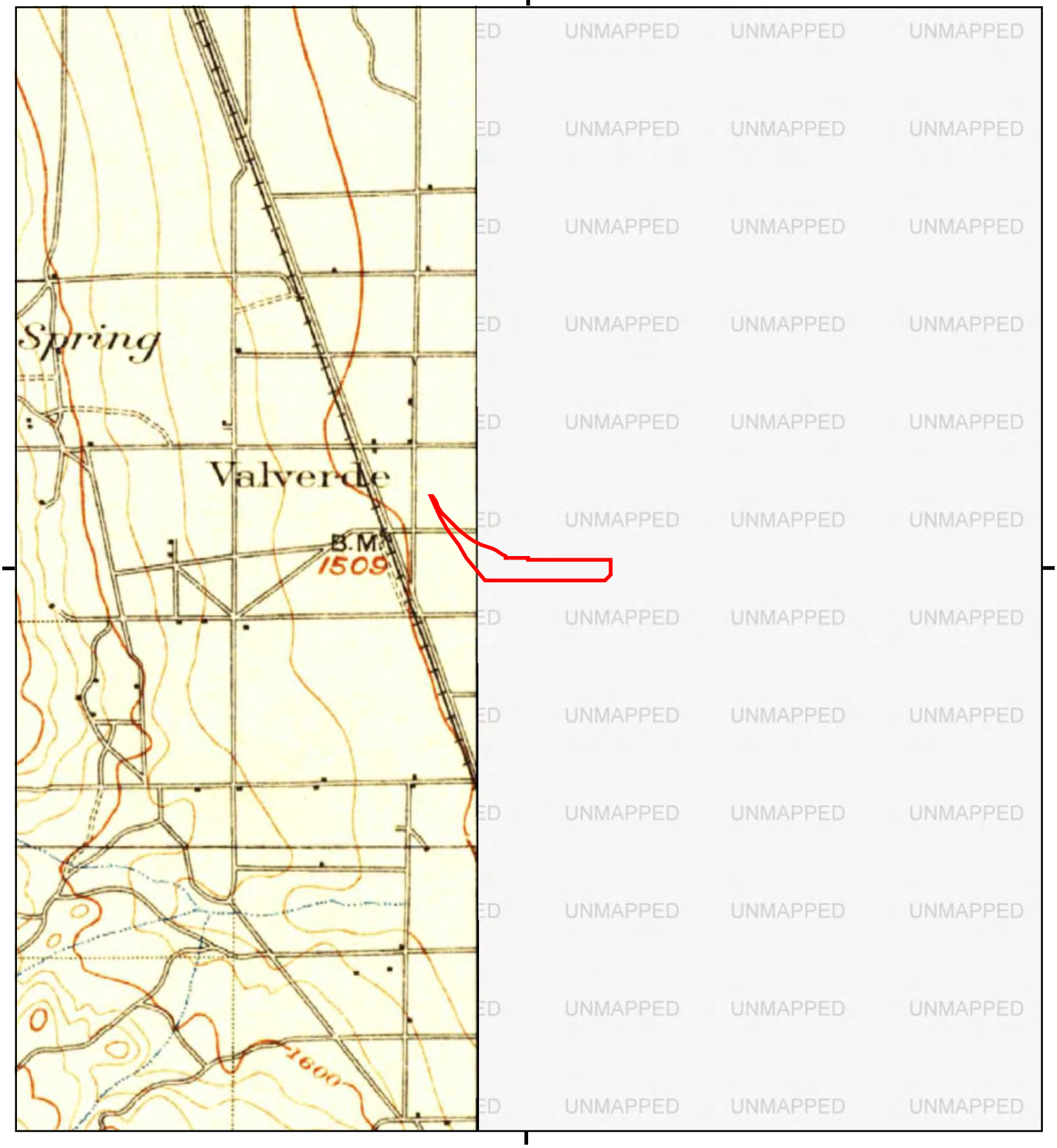
TP, Perris, 1942, 15-minute
W, Riverside, 1942, 15-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

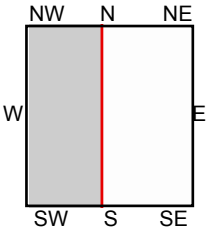
Historical Topo Map

1901



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



W, Riverside, 1901, 15-minute

SITE NAME: Vacant Property
ADDRESS: Ramona Expressway
Perris, CA 92571
CLIENT: Earth Strata Geotechnical Services, Inc

N

Appendix D

Vacant Property
Ramona Expressway
Perris, CA 92571

Inquiry Number: 7396039.2s
July 20, 2023

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
Map Findings Summary	4
Map Findings	9
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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

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Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

RAMONA EXPRESSWAY
PERRIS, CA 92571

COORDINATES

Latitude (North):	33.8452180 - 33˚ 50' 42.78''
Longitude (West):	117.2481780 - 117˚ 14' 53.44''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	477039.3
UTM Y (Meters):	3744828.0
Elevation:	1493 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12015907 PERRIS, CA
Version Date:	2018
Southwest Map:	12015925 STEELE PEAK, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20200423
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
RAMONA EXPRESSWAY
PERRIS, CA 92571

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	MARCH ARB		DOD	Same	5038, 0.954, North
Reg	MARCH ARB		DOD	Same	3151, 0.597, NNE
Reg	MARCH AIR FORCE BASE	22 CSG/CC	NPL, SEMS, RCRA-LQG, US ENG CONTROLS, US INST...	Same	4320, 0.818, NNE
1	RYDER E-COMMERCE	4160 PATTERSON AVE	CERS	Higher	1 ft.
A2	LAKE CHEVRON	796 W RAMONA EXPRESS	UST	Lower	220, 0.042, East
A3	LAKE CHEVRON	796 W RAMONA EXPRESS	CERS HAZ WASTE, CERS TANKS, CERS	Lower	220, 0.042, East
B4	FERGUSON PERRIS DIST	4100 N WEBSTER AVE	CERS HAZ WASTE, HAZNET, CERS, HWTS	Lower	283, 0.054, ENE
B5	FERGUSON PERRIS DIST	4100 N WEBSTER AVE	RCRA NonGen / NLR	Lower	283, 0.054, ENE
B6	PERRIS 1031	4100 N WEBSTER AVE	RCRA NonGen / NLR	Lower	283, 0.054, ENE
7	KENNY RAY FARMS	23381 PERRY	HIST UST	Lower	855, 0.162, NNW
8	DRT GRADING INC	18810 HARVILL AVE	RCRA NonGen / NLR	Higher	1199, 0.227, WNW
9	VAL VERDE CONTINUATI	NEVADA AVENUE/MORGAN	ENVIROSTOR, SCH	Higher	2562, 0.485, South

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-VSQG ..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System
US ENG CONTROLS ..... Engineering Controls Sites List

US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE..... State Response Sites

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
VCP..... Voluntary Cleanup Program Properties

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem

EXECUTIVE SUMMARY

US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
PFAS NPL	Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES	Federal Sites PFAS Information
PFAS TSCA	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR	PFAS Contamination Site Location Listing
PFAS WQP	Ambient Environmental Sampling for PFAS
PFAS NPDES	Clean Water Act Discharge Monitoring Information
PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAINING	Facilities in Industries that May Be Handling PFAS Listing
PFAS PART 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing
PFAS	PFAS Contamination Site Location Listing
AQUEOUS FOAM	Former Fire Training Facility Assessments Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
ICE	ICE
HIST CORTESE	Hazardous Waste & Substance Site List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
HAZNET	Facility and Manifest Data
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
HAZMAT	Hazardous Material Facilities
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
PFAS TRIS	List of PFAS Added to the TRI
HWTS	Hazardous Waste Tracking System

EXECUTIVE SUMMARY

MINES MRDS..... Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 04/26/2023 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE Cerclis ID:: 902761 EPA Id: CA4570024527	***22 CSG/CC***	***NNE 1/2 - 1 (0.818 mi.)***	***0***	***9***

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/24/2023 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VAL VERDE CONTINUATI	***NEVADA AVENUE/MORGAN***	***S 1/4 - 1/2 (0.485 mi.)***	***9***	***123***
Facility Id: 33010050				
Status: No Further Action				

Lists of state and tribal registered storage tanks

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAKE CHEVRON	796 W RAMONA EXPRESS	E 0 - 1/8 (0.042 mi.)	A2	59
Database: RIVERSIDE CO. UST, Date of Government Version: 04/10/2023				
Database: UST, Date of Government Version: 03/06/2023				
Facility Id: FA0025793				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/17/2023 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAKE CHEVRON	***796 W RAMONA EXPRESS***	***E 0 - 1/8 (0.042 mi.)***	***A3***	***61***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FERGUSON PERRIS DIST	***4100 N WEBSTER AVE***	***ENE 0 - 1/8 (0.054 mi.)***	***B4***	***80***

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
KENNY RAY FARMS Facility Id: 00000042833	23381 PERRY	NNW 1/8 - 1/4 (0.162 mi.)	7	120

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 04/17/2023 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LAKE CHEVRON	***796 W RAMONA EXPRESS***	***E 0 - 1/8 (0.042 mi.)***	***A3***	***61***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/06/2023 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DRT GRADING INC EPA ID:: CAC002968551	18810 HARVILL AVE	WNW 1/8 - 1/4 (0.227 mi.)	8	121

Lower Elevation	Address	Direction / Distance	Map ID	Page
FERGUSON PERRIS DIST EPA ID:: CAL000447611	4100 N WEBSTER AVE	ENE 0 - 1/8 (0.054 mi.)	B5	116
PERRIS 1031 EPA ID:: CAL000449598	4100 N WEBSTER AVE	ENE 0 - 1/8 (0.054 mi.)	B6	118

EXECUTIVE SUMMARY

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 06/07/2021 has revealed that there are 2 DOD sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH ARB		N 1/2 - 1 (0.954 mi.)	0	9
MARCH ARB		NNE 1/2 - 1 (0.597 mi.)	0	9

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 04/26/2023 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE EPA ID:: CA4570024527	***22 CSG/CC***	***NNE 1/2 - 1 (0.818 mi.)***	***0***	***9***

CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

A review of the CERS list, as provided by EDR, and dated 04/17/2023 has revealed that there is 1 CERS site within approximately 0.001 miles of the target property.

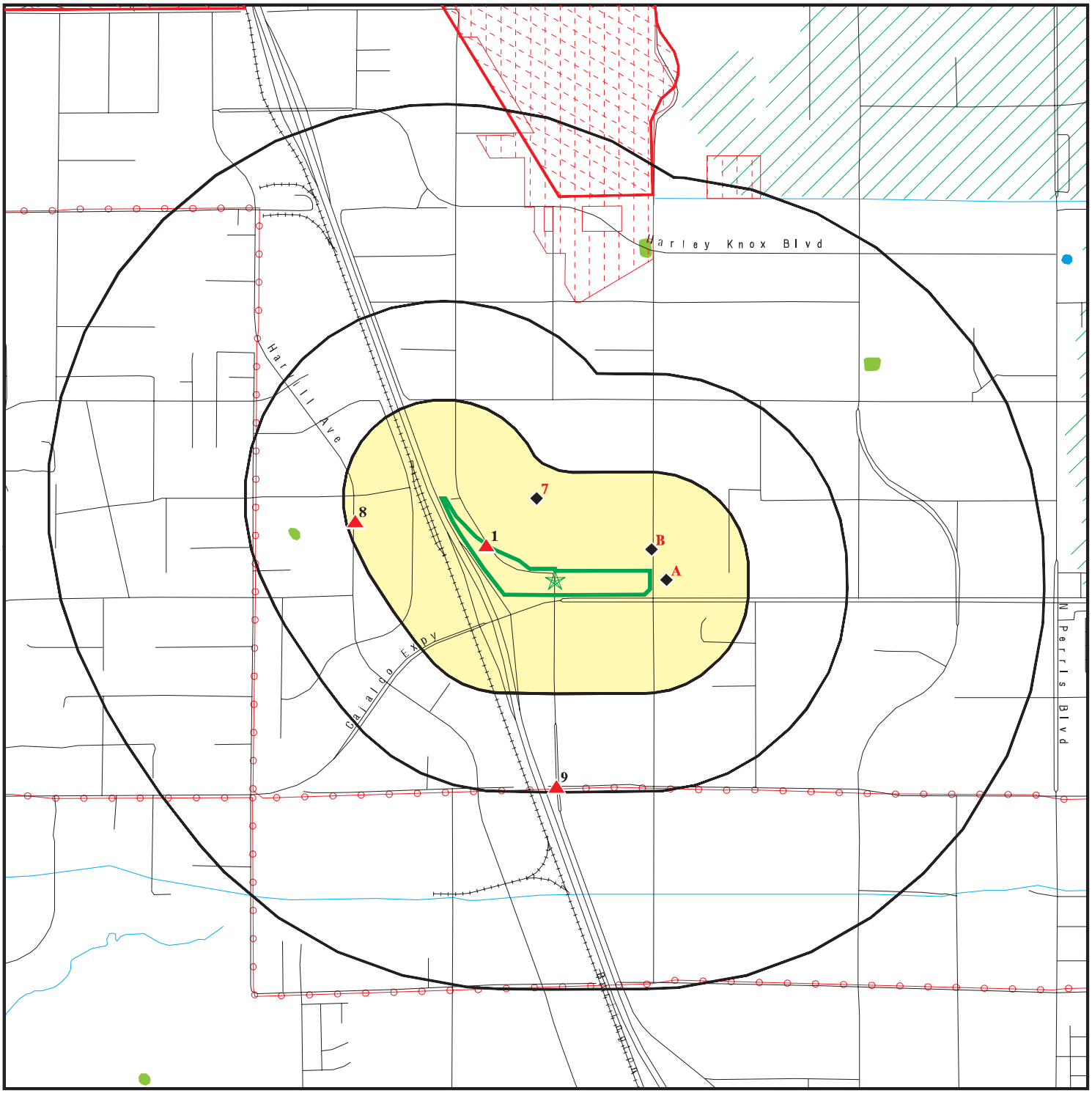
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RYDER E-COMMERCE	4160 PATTERSON AVE	0 - 1/8 (0.000 mi.)	1	54

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
	CDL
	CDL

OVERVIEW MAP - 7396039.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Vacant Property ADDRESS: Ramona Expressway Perris CA 92571 LAT/LONG: 33.845218 / 117.248178	CLIENT: Earth Strata Geotechnical Services, Inc CONTACT: Tim Doyle INQUIRY #: 7396039.2s DATE: July 20, 2023 8:32 pm

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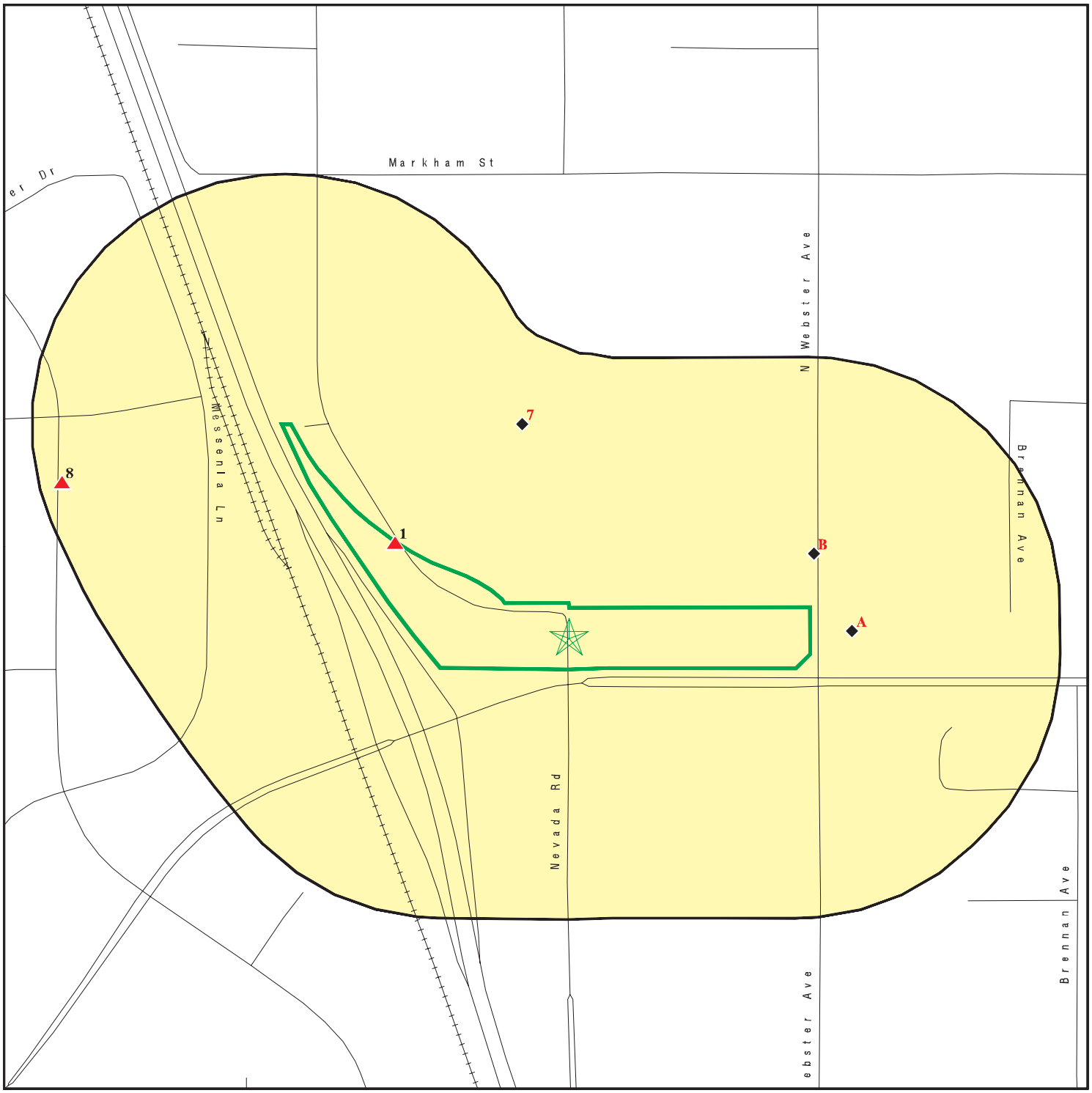
DETAIL MAP - 7396039.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Vacant Property	CLIENT: Earth Strata Geotechnical Services, Inc
ADDRESS: Ramona Expressway Perris CA 92571	CONTACT: Tim Doyle INQUIRY #: 7396039.2s
LAT/LONG: 33.845218 / 117.248178	DATE: July 20, 2023 8:33 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	1	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		0	0	1	0	NR	1
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		2	0	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	1	NR	NR	NR	1
CERS TANKS	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	1	NR	NR	NR	3
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	2	NR	2
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	1	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAINING	0.250		0	0	NR	NR	NR	0
PFAS PART 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
HAZMAT	0.250		0	0	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		1	NR	NR	NR	NR	1
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	7	2	1	4	0	14

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

DOD **MARCH ARB** **DOD** **CUSA401268**
Region **N/A**
North **, CA**
1/2-1
5038 ft.

DOD:

Site Name:	MARCH ARB
DOD Component:	AF Reserve
Joint Base:	N/A
Operating Status:	ACT (Active): Site has an on-going operational/support mission (s).

DOD **MARCH ARB** **DOD** **CUSA401259**
Region **N/A**
NNE **, CA**
1/2-1
3151 ft.

DOD:

Site Name:	MARCH ARB
DOD Component:	AF Reserve
Joint Base:	N/A
Operating Status:	ACT (Active): Site has an on-going operational/support mission (s).

NPL **MARCH AIR FORCE BASE** **NPL** **1000169261**
Region **22 CSG/CC** **SEMS** **CA4570024527**
NNE **RIVERSIDE, CA 92518** **RCRA-LQG**
1/2-1 **US ENG CONTROLS**
4320 ft. **US INST CONTROLS**
ROD
PRP
PFAS NPL

NPL:

EPA Region:	9
EPA ID:	CA4570024527
Site ID:	902761
Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
City,State,Zip:	RIVERSIDE, CA 92518
Federal:	Y
Final Date:	1989-11-21 00:00:00
Latitude:	33.906389
Longitude:	-117.2557
Site Score:	31.940000000000001
NAI:	Not reported
Native American Entity:	Not reported

Substance as of 08/2019:

NPL Status:	Currently on the Final NPL
Substance ID:	Not reported
CAS Number:	Not reported
Substance:	Not reported
Pathway:	Not reported
Scoring:	Not reported

NPL Status:	Currently on the Final NPL
Substance ID:	A046
CAS Number:	1336-36-3

MARCH AIR FORCE BASE (Continued) **1000169261**

Substance: POLYCHLORINATED BIPHENYLS
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U210
CAS Number: 127-18-4
Substance: TETRACHLOROETHENE
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
CAS Number: 79-01-6
Substance: TRICHLOROETHYLENE (TCE)
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal July 14, 1989): March Air Force Base MAFB) covers approximately 7,000 acres near Riverside in the Moreno Valley in Riverside County, California. MAFB is adjacent to light industrial, agricultural, and residential areas. Established in 1918 as the Alessandro Aviation Field, MAFB has served as a training base and refueling operations base. Industrial operations including aircraft maintenance and repair) involved use of solvents and disposal of solvent wastes. MAFB is participating in the Installation Restoration Program IRP), established in 1978. Under this program, the Department of Defense seeks to identify, investigate, and clean up contamination from ha ardous materials. As part ofIRP, the Air Force investigated 28 potentially contaminated disposal areas. MAFB Well No. 1 on-base was found to be contaminated with trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene at levels that exceed State drinking water standards. It was taken out of service. Soils on the base are contaminated with toluene and ben ene. An estimated 11,600 people obtain drinking water from municipal wells within 3 miles of ha ardous substances on MAFB. The Air Forceis conducting a remedial investigation/ feasibility study RI/FS) to determine the type and extent of contamination at the base and identify alternatives for remedial action. Status November 21, 1989): Field work continues on the RI/FS.

Category as of 08/2019:
NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-> 50 And <= 100 Feet
Category Value: 65

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

Narratives as of 08/2019:
NPL Name: MARCH AIR FORCE BASE

Site as of 08/2019:
EPA Region: 09
Site ID: 0902761

MARCH AIR FORCE BASE (Continued) **1000169261**

Site Status: F
Federal Site: Y
Date Deleted: Not reported
Date Finalized: 11/21/89
Date Proposed: 07/14/89

Site Status as of 08/2019:
Proposed Date: 07/14/1989
Final Date: 11/21/1989
Deleted Date: Not reported
NPL Status: Final

Narr:
Site Name: March Air Force Base
Site EPA ID: CA4570024527
Listing Date: 11/21/1989
Site Score: 31.94
Federal Facility Indicator: Yes
Site List URL: https://semspub.epa.gov/src/document/09/2400158
Site Progress URL: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0902761
Federal Register URL: https://semspub.epa.gov/src/document/11/189634
Site Location URL: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33cebcdfdd1b4c3a8b51d416956c41f1&query=Superfund_National_Priorities_List__NPL__Sites_with_Status_Information_7557,SITE_EPA_ID=%27CA4570024527%27

SEMS:
Site ID: 0902761
EPA ID: CA4570024527
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
Address 2: Not reported
City,State,Zip: RIVERSIDE, CA 92518
Cong District: 41,43
FIPS Code: 06065
Latitude: 33.906389
Longitude: -117.255700
FF: Y
NPL: Currently on the Final NPL
Non NPL Status: Not reported

SEMS Detail:
Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 00
Action Code: NF
Action Name: NPL FINL
SEQ: 1
Start Date: 1989-11-21 05:00:00
Finish Date: 1989-11-21 05:00:00
Qual: Not reported
Current Action Lead: EPA Perf

MARCH AIR FORCE BASE (Continued) **1000169261**

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	AR
Action Name:	ADMIN REC
SEQ:	1
Start Date:	2000-10-24 04:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	NP
Action Name:	PROPOSED
SEQ:	1
Start Date:	1989-07-14 04:00:00
Finish Date:	1989-07-14 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	HR
Action Name:	HAZRANK
SEQ:	1
Start Date:	1987-06-01 04:00:00
Finish Date:	1987-06-01 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	2
Start Date:	1990-09-27 04:00:00
Finish Date:	2005-09-29 04:00:00

MARCH AIR FORCE BASE (Continued) **1000169261**

Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	RO
Action Name:	ROD
SEQ:	3
Start Date:	2005-09-29 04:00:00
Finish Date:	2005-09-29 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	4
Start Date:	1992-01-24 05:00:00
Finish Date:	1995-04-30 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	4
Start Date:	2004-05-11 04:00:00
Finish Date:	2004-05-11 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	LY
Action Name:	FF RA

MARCH AIR FORCE BASE (Continued) **1000169261**

SEQ:	1
Start Date:	1996-03-05 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	1987-02-01 05:00:00
Finish Date:	1987-02-01 05:00:00
Qual:	L
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	1987-06-01 04:00:00
Finish Date:	1987-06-01 04:00:00
Qual:	L
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	LX
Action Name:	FF RD
SEQ:	1
Start Date:	1996-04-07 05:00:00
Finish Date:	1996-04-18 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y

MARCH AIR FORCE BASE (Continued) **1000169261**

OU:	01
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	1
Start Date:	1990-09-27 04:00:00
Finish Date:	1996-06-20 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	RO
Action Name:	ROD
SEQ:	1
Start Date:	1996-06-20 04:00:00
Finish Date:	1996-06-20 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	5
Start Date:	2005-09-30 04:00:00
Finish Date:	2005-09-30 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	05
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	5
Start Date:	2005-10-30 04:00:00
Finish Date:	2015-05-21 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527

MARCH AIR FORCE BASE (Continued) **1000169261**

Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	05
Action Code:	RO
Action Name:	ROD
SEQ:	6
Start Date:	2019-04-22 05:00:00
Finish Date:	2019-04-22 05:00:00
Qual:	R
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1985-02-01 06:00:00
Finish Date:	1985-02-01 06:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	7
Start Date:	2004-04-01 05:00:00
Finish Date:	2004-04-01 05:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	6
Start Date:	1995-07-01 04:00:00
Finish Date:	1997-07-01 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

MARCH AIR FORCE BASE (Continued) **1000169261**

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	EE
Action Name:	EE/CA
SEQ:	1
Start Date:	2018-11-12 06:00:00
Finish Date:	2018-11-12 06:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

RCRA Listings:

Date Form Received by Agency:	20220426
Handler Name:	March Air Reserve Base
Handler Address:	610 MEYER DR
Handler City,State,Zip:	MARCH ARB, CA 92518
EPA ID:	CA4570024527
Contact Name:	CHRIS WAGNER
Contact Address:	MEYER DR
Contact City,State,Zip:	MARCH ARB, CA 92518
Contact Telephone:	951-655-3653
Contact Fax:	Not reported
Contact Email:	CHRIS.WAGNER@US.AF.MIL
Contact Title:	HAZARDOUS MATERIALS / WASTE MANAGER
EPA Region:	09
Land Type:	Federal
Federal Waste Generator Description:	Large Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	MEYER DR
Mailing City,State,Zip:	MARCH ARB, CA 92518
Owner Name:	Us Air Force
Owner Type:	Federal
Operator Name:	Colonel Gregory P. Haynes
Operator Type:	Federal
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No

MARCH AIR FORCE BASE (Continued) **1000169261**

Active Site State-Reg Handler:	---
Federal Facility Indicator:	The land is federally-owned, The site is federally-owned, The site is federally-operated
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20220509
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Biennial: List of Years

Year: 2021

Click Here for Biennial Reporting System Data:
Year: 2019

Click Here for Biennial Reporting System Data:
Year: 2015

Click Here for Biennial Reporting System Data:
Year: 2013

Click Here for Biennial Reporting System Data:
Year: 2011

Click Here for Biennial Reporting System Data:
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

MARCH AIR FORCE BASE (Continued) **1000169261**

Click Here for Biennial Reporting System Data:
Year: 2001

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:

Waste Code: D001
Waste Description: Ignitable Waste

Waste Code: D002
Waste Description: Corrosive Waste

Waste Code: D003
Waste Description: Reactive Waste

Waste Code: D004
Waste Description: Arsenic

Waste Code: D005
Waste Description: Barium

Waste Code: D006
Waste Description: Cadmium

Waste Code: D007
Waste Description: Chromium

Waste Code: D008
Waste Description: Lead

Waste Code: D009
Waste Description: Mercury

Waste Code: D010
Waste Description: Selenium

Waste Code: D011
Waste Description: Silver

Waste Code: D018
Waste Description: Benzene

Waste Code: D021
Waste Description: Chlorobenzene

Waste Code: D028
Waste Description: 1,2-Dichloroethane

Waste Code: D033
Waste Description: Hexachlorobutadiene

Waste Code: D035
Waste Description: Methyl Ethyl Ketone

Waste Code: D039
Waste Description: Tetrachloroethylene

MARCH AIR FORCE BASE (Continued) **1000169261**

Waste Code: D040
Waste Description: Trichlorethylene

Waste Code: F001
Waste Description: The Following Spent Halogenated Solvents Used In Degreasing: Tetrachloroethylene, Trichlorethylene, Methylene Chloride, 1,1,1-Trichloroethane, Carbon Tetrachloride And Chlorinated Fluorocarbons; All Spent Solvent Mixtures/Blends Used In Degreasing Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F002, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Waste Code: F002
Waste Description: The Following Spent Halogenated Solvents: Tetrachloroethylene, Methylene Chloride, Trichloroethylene, 1,1,1-Trichloroethane, Chlorobenzene, 1,1,2-Trichloro-1,2,2-Trifluoroethane, Ortho-Dichlorobenzene, Trichlorofluoromethane, And 1,1,2, Trichloroethane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F001, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Waste Code: F003
Waste Description: The Following Spent Nonhalogenated Solvents: Xylene, Acetone, Ethyl Acetate, Ethyl Benzene, Ethyl Ether, Methyl Isobutyl Ketone, N-Butyl Alcohol, Cyclohexanone, And Methanol; All Spent Solvent Mixtures/Blends Containing, Before Use, Only The Above Spent Nonhalogenated Solvents; And All Spent Solvent Mixtures/Blends Containing, Before Use, One Or More Of The Above Nonhalogenated Solvents, And A Total Of Ten Percent Or More (By Volume) Of One Or More Of Those Solvents Listed In F001, F002, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Waste Code: F005
Waste Description: The Following Spent Nonhalogenated Solvents: Toluene, Methyl Ethyl Ketone, Carbon Disulfide, Isobutanol, Pyridine, Benzene, 2-Ethoxyethanol, And 2-Nitropropane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Nonhalogenated Solvents Or Those Solvents Listed In F001, F002, Or F004; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Waste Code: P098
Waste Description: Potassium Cyanide (Or) Potassium Cyanide K(Cn)

Waste Code: U188
Waste Description: Phenol

Waste Code: U227
Waste Description: 1,1,2-Trichloroethane (Or) Ethane, 1,1,2-Trichloro-

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: US AIR FORCE

MARCH AIR FORCE BASE (Continued) **1000169261**

Legal Status:	Federal
Date Became Current:	19450101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: COL GREGORY P HAYNES	
Legal Status:	Federal
Date Became Current:	20190101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER ST., STE 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	GREGORY.HAYNES.2@US.AF.MIL

Owner/Operator Indicator:	Operator
Owner/Operator Name: MULTIPLE OPS - ALL USAF COMMANDS	
Legal Status:	Federal
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	22 CSG/CC
Owner/Operator City,State,Zip:	CITY NOT REPORTED, CA 99999
Owner/Operator Telephone:	714-655-4735
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: COL. RUSSELL A MUNCY	
Legal Status:	Federal
Date Became Current:	20131101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: COLONEL GREGORY P. HAYNES	
Legal Status:	Federal
Date Became Current:	20210801
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER ST., STE 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	GREGORY.HAYNES.2@US.AF.MIL

MARCH AIR FORCE BASE (Continued) **1000169261**

Owner/Operator Indicator:	Owner
Owner/Operator Name: UNITED STATES AIR FORCE	
Legal Status:	Private
Date Became Current:	19180101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER STREET, ST 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: US AIR FORCE	
Legal Status:	Federal
Date Became Current:	19450101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	CHRISTHILD.WAGNER@US.AF.MIL

Owner/Operator Indicator:	Operator
Owner/Operator Name: COLONEL JAMES T. RUBEOR	
Legal Status:	Federal
Date Became Current:	20030719
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: GENERAL JAMES L. MELIN	
Legal Status:	Private
Date Became Current:	20060723
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: USAF RESERVE COMMAND	
Legal Status:	Federal
Date Became Current:	19180101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRABER STREET SUITE 117
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518-2166
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRIG. GEN MELISSA COBURN
Legal Status: Federal
Date Became Current: 20190101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRAEBER ST., STE 117
Owner/Operator City,State,Zip: MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone: 951-655-4520
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: MELISSA.COBURN@US.AF.MIL

Owner/Operator Indicator: Operator
Owner/Operator Name: GEN. RUSSELL A. MUNCY
Legal Status: Federal
Date Became Current: 20131101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: GENERAL JAMES T. RUBEOR
Legal Status: Federal
Date Became Current: 20030719
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: COL MARY ARB
Legal Status: Federal
Date Became Current: 20100101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRABER STREET SUITE 117
Owner/Operator City,State,Zip: MARCH ARB, CA 92518-2166
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: US AIR FORCE
Legal Status: Federal
Date Became Current: 19470101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRAEBER ST, BLDG 470

MARCH AIR FORCE BASE (Continued) **1000169261**

Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: US AIR FORCE	
Legal Status:	Federal
Date Became Current:	19450101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: USAF RESERVE COMMAND	
Legal Status:	Federal
Date Became Current:	20060723
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER STREET, ST 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: US AIR FORCE	
Legal Status:	Federal
Date Became Current:	19450101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER ST
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	452AMW.CP@US.AF.MIL
Owner/Operator Indicator:	Operator
Owner/Operator Name: GENERAL JAMES L. MELIN	
Legal Status:	Federal
Date Became Current:	20060723
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	CA 92518
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: USAF	
Legal Status:	Federal

MARCH AIR FORCE BASE (Continued) **1000169261**

Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 452 SPTG CEV
Owner/Operator City,State,Zip: MARCH ARB, CA 92518-2166
Owner/Operator Telephone: 909-655-5069
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: US AIR FORCE
Legal Status: Federal
Date Became Current: 19180101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRAEBER ST., SUITE 117
Owner/Operator City,State,Zip: MARCH AIR RESERVE BASE, CA 92518-1667
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: UNITED STATES AIR FORCE
Legal Status: Federal
Date Became Current: 19180101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRAEBER STREET, SUITE 117
Owner/Operator City,State,Zip: MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20100715
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20130320
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No

MARCH AIR FORCE BASE (Continued) **1000169261**

Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20141022
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20160229
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20200708
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 20220331
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 19960901
Handler Name: MARCH AIR RESERVE BASE

MARCH AIR FORCE BASE (Continued) **1000169261**

Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20000714
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20220426
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 19920330
Handler Name: MARCH AIR FORCE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19940331
Handler Name: MARCH AIR FORCE BASE, CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No

MARCH AIR FORCE BASE (Continued) **1000169261**

Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19960326
Handler Name: MARCH AFB, CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19990304
Handler Name: MARCH ARB, CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20001012
Handler Name: MARCH ARB CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20020410
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Receive Date: 20040225
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20060208
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20080326
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 92811
NAICS Description: NATIONAL SECURITY

NAICS Code: 92812
NAICS Description: INTERNATIONAL AFFAIRS

Has the Facility Received Notices of Violations:
Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: Generators - General
Date Violation was Determined: 19840305
Actual Return to Compliance Date: 19950404
Return to Compliance Qualifier: Unverifiable
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001

MARCH AIR FORCE BASE (Continued) **1000169261**

Date of Enforcement Action: 19840518
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9EPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: Generators - General
Date Violation was Determined: 19950427
Actual Return to Compliance Date: 20000427
Return to Compliance Qualifier: Not Resolved
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 002
Date of Enforcement Action: 19950428
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 19840305
Evaluation Responsible Agency: EPA
Found Violation: Yes
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: R9EPA
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 19950404
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 20061102
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: Not reported
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19950404

MARCH AIR FORCE BASE (Continued) **1000169261**

Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20000427
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19960506
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FOLLOW-UP INSPECTION
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

SIte:

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
Event Code:	Not reported
Action Taken Date:	04/22/2019
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	6
Operable Unit:	05
Contaminated Media:	Groundwater
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

MARCH AIR FORCE BASE (Continued) **1000169261**

Media:

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	04
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	3
Operable Unit:	04
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	04
Action Name:	Record of Decision

MARCH AIR FORCE BASE (Continued) **1000169261**

Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	5
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/30/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	5
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/30/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y

MARCH AIR FORCE BASE (Continued) **1000169261**

Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Free-phase NAPL
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

MARCH AIR FORCE BASE (Continued) **1000169261**

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Free-phase NAPL
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996

MARCH AIR FORCE BASE (Continued) **1000169261**

Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019

MARCH AIR FORCE BASE (Continued) **1000169261**

NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527

MARCH AIR FORCE BASE (Continued) **1000169261**

Contaminated Media:	Groundwater
Action ID:	6
Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Explanation of Significant Differences
Action Taken Date:	08/24/2000
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2000
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil Gas
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL

MARCH AIR FORCE BASE (Continued) **1000169261**

Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	2
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	02/25/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	2
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	02/25/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	12/12/2016
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater

MARCH AIR FORCE BASE (Continued) **1000169261**

Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Free-phase NAPL
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N

MARCH AIR FORCE BASE (Continued) **1000169261**

Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	6

MARCH AIR FORCE BASE (Continued) **1000169261**

Operable Unit:	05
Action Name:	Record of Decision
Action Taken Date:	04/22/2019
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	7
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	04/01/2004
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Solid Waste
Action ID:	7
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	04/01/2004
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	7
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	04/01/2004
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

US INST CONTROLS:

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	ROD Amendment
Action ID:	1
Operable Unit:	01
Actual Date:	08/01/2017
Contaminated Media:	Soil Gas
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	3
Operable Unit:	04
Actual Date:	09/29/2005
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	4
Operable Unit:	02
Actual Date:	05/11/2004
Contaminated Media:	Groundwater
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	4

MARCH AIR FORCE BASE (Continued) **1000169261**

Operable Unit:	02
Actual Date:	05/11/2004
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	5
Operable Unit:	02
Actual Date:	09/30/2005
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	6
Operable Unit:	05
Actual Date:	04/22/2019
Contaminated Media:	Groundwater
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE

MARCH AIR FORCE BASE (Continued) **1000169261**

Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	6
Operable Unit:	05
Actual Date:	04/22/2019
Contaminated Media:	Soil Gas
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2019
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	7
Operable Unit:	02
Actual Date:	04/01/2004
Contaminated Media:	Groundwater
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	7
Operable Unit:	02
Actual Date:	04/01/2004
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004

MARCH AIR FORCE BASE (Continued) **1000169261**

NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	7
Operable Unit:	02
Actual Date:	04/01/2004
Contaminated Media:	Solid Waste
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

ROD:

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
RG:	9
Site ID:	902761
Action:	FF ESD
Operable Unit Number:	EAST MARCH - SOILS/GW
SEQ ID:	1
Action Completion:	2000-08-24 00:00:00
NPL Status:	Final
Non NPL Status:	Not reported

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
RG:	9
Site ID:	902761
Action:	FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number:	EAST MARCH - SOILS/GW
SEQ ID:	1
Action Completion:	1996-06-20 00:00:00
NPL Status:	Final
Non NPL Status:	Not reported

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527

MARCH AIR FORCE BASE (Continued) **1000169261**

RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: BASEWIDE
SEQ ID: 3
Action Completion: 2005-09-29 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 4
Action Completion: 2004-05-11 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 5
Action Completion: 2005-09-30 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: SITEWIDE GW
SEQ ID: 6
Action Completion: 2019-04-22 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 7

MARCH AIR FORCE BASE (Continued) **1000169261**

Action Completion: 2004-04-01 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD Amendment
Operable Unit Number: EAST MARCH - SOILS/GW
SEQ ID: 1
Action Completion: 2017-08-01 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD Amendment
Operable Unit Number: EAST MARCH - SOILS/GW
SEQ ID: 2
Action Completion: 2019-02-25 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD Amendment
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 3
Action Completion: 2016-12-12 00:00:00
NPL Status: Final
Non NPL Status: Not reported

PRP:
PRP Name: STATE OF CALIFORNIA/DEPT. OF HEALTH SERVICES
STATE OF CALIFORNIA/DEPT. OF WATER QUALITY
U.S. AIR FORCE
U.S. AIR FORCE

PFAS NPL:
EPA Region: 09
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPAID: CA4570024527
Superfund Link: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0902761&msspp=med

MARCH AIR FORCE BASE (Continued) **1000169261**

Data Systems:	SEMS
Location Type:	Federal
NPL Site:	Y
NPL Status:	Final
Media Detected:	GW
Latitude:	33.906389
Longitude:	-117.2557
EJSCREEN Report:	https://ejscreen.epa.gov/mapper/mobile/EJSCREEN_mobile.aspx?geometry=%7B%22x%22:-117.2557,%22y%22:33.906389,%22spatialReference%22:%7B%22wkid%22:4326%7D%7D&unit=9035&areatype=&areaid=&basemap=streets&distance=1

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1 **RYDER E-COMMERCE** **CERS** **S124442469**
4160 PATTERSON AVE **N/A**
< 1/8 **PERRIS, CA 92571**
1 ft.

Relative:
Higher

Actual:
1499 ft.

CERS:

Name:	RYDER E-COMMERCE
Address:	4160 PATTERSON AVE
City,State,Zip:	PERRIS, CA 92571
Site ID:	550678
CERS ID:	10811491
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	11-01-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 12/13/2019.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	11-01-2019
Citation:	HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description:	Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 12/13/2019.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	11-01-2019
Citation:	HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description:	Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for

RYDER E-COMMERCE (Continued) **S124442469**

	emergency response or training.
Violation Notes:	Returned to compliance on 12/13/2019.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	11-01-2019
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 12/13/2019.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	11-01-2019
Citation:	Un-Specified
Violation Description:	Business Plan Program - Administration/Documentation - General Local Ordinance
Violation Notes:	Returned to compliance on 01/28/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	11-01-2019
Citation:	Un-Specified
Violation Description:	Business Plan Program - Operations/Maintenance - General Local Ordinance
Violation Notes:	Returned to compliance on 12/13/2019.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	550678
Site Name:	Ryder e-Commerce
Violation Date:	04-01-2021
Citation:	HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 01/20/2022.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	550678
Site Name:	Ryder e-Commerce

RYDER E-COMMERCE (Continued) **S124442469**

Violation Date: 11-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 12/13/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 550678
Site Name: Ryder e-Commerce
Violation Date: 11-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 12/13/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 550678
Site Name: Ryder e-Commerce
Violation Date: 11-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 12/13/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 550678
Site Name: Ryder e-Commerce
Violation Date: 11-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 12/13/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 05-17-2022
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP

RYDER E-COMMERCE (Continued) **S124442469**

Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-07-2022
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: This facility is a warehouse that handles Lead Acid Batteries.
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-01-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 04-01-2021
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Affiliation:

Affiliation Type Desc: Document Preparer
Entity Name: Eric Walker
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 4160 Patterson Ave
Affiliation City: Perris
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92571
Affiliation Phone: ,

Affiliation Type Desc: Operator
Entity Name: Eric Walker
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

RYDER E-COMMERCE (Continued) **S124442469**

Affiliation Zip:	Not reported
Affiliation Phone:	(909) 731-3515,
Affiliation Type Desc:	Environmental Contact
Entity Name:	Eric Walker
Entity Title:	Not reported
Affiliation Address:	4160 Patterson Ave
Affiliation City:	Perris
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92571
Affiliation Phone:	,
Affiliation Type Desc:	Identification Signer
Entity Name:	Eric Walker
Entity Title:	General Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Legal Owner
Entity Name:	Ryder Integrated Logistics
Entity Title:	Not reported
Affiliation Address:	4160 Patterson Ave
Affiliation City:	Perris
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92571
Affiliation Phone:	(909) 731-3515,
Affiliation Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	4065 County Circle Drive, Room 104
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92503
Affiliation Phone:	(951) 358-5055,
Affiliation Type Desc:	Parent Corporation
Entity Name:	Ryder e-Commerce
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

A2 East < 1/8 0.042 mi. 220 ft. | **LAKE CHEVRON**
796 W RAMONA EXPRESSWY
PERRIS, CA 92571 | **UST** | **U004122551**
N/A

Site 1 of 2 in cluster A

Relative: Lower

Actual: 1480 ft.

RIVERSIDE CO. UST:

Name:	LAKE CHEVRON
Address:	796 W RAMONA EXPRESSWY
City,State,Zip:	PERRIS, CA 92571
Region:	RIVERSIDE
Total Tanks:	3

UST:

Name:	LAKE CHEVRON
Address:	796 W RAMONA EXPRESSWY
City,State,Zip:	PERRIS, CA 92571
Facility ID:	FA0025793
Permitting Agency:	Riverside County Department of Environmental Health
CERSID:	10324834
Latitude:	33.8452900
Longitude:	-117.243260
Owner type:	Non-Government
Facility type:	Motor Vehicle Fueling
Num of inuse ust:	Not reported
Num of closed ust:	0
Num of oos ust:	0
Epa region:	9
Tribal lands:	No
Tank owner name:	Nusa, Inc.
Tank owner mailing address:	16810 Van Buren Blvd., Suite 200
Tank owner mailing city:	Riverside
Tank owner mailing zip:	90504
Tank owner mailing state:	Ca
Tank operator name:	Ramona Expressway, LLC
Tank operator mailing address:	796 W. Ramona Expressway
Tank operator mailing city:	Riverside
Tank operator mailing zip:	92571
Tank operator mailing state:	Ca
Tankidnumber:	1
Tank status:	Confirmed/Updated Information
Tank configuration:	Stand Alone Tank
Tank closure date:	Not reported
Tank installation date:	11/7/2007 12:00:00 AM
Tank num of compartments:	1
Tank contents:	Regular Unleaded
Tank capacity gallons:	20000
Tank type:	Double Wall
Tank pc construction:	Fiberglass
Tank pwpiping construction:	Fiberglass
Tank piping type:	Pressure
Tank piping construction:	Double Walled
Tank sacrificial anode:	No
Tank cp impressed current:	No
Tank cp shutoff:	Yes
Tank alarms:	No
Tank ball float:	No
Tank spill bucket:	Yes

LAKE CHEVRON (Continued) **U004122551**

Name:	LAKE CHEVRON
Address:	796 W RAMONA EXPRESSWY
City,State,Zip:	PERRIS, CA 92571
Facility ID:	FA0025793
Permitting Agency:	Riverside County Department of Environmental Health
CERSID:	10324834
Latitude:	33.8452900
Longitude:	-117.243260
Owner type:	Non-Government
Facility type:	Motor Vehicle Fueling
Num of inuse ust:	Not reported
Num of closed ust:	0
Num of oos ust:	0
Epa region:	9
Tribal lands:	No
Tank owner name:	Nusa, Inc.
Tank owner mailing address:	16810 Van Buren Blvd., Suite 200
Tank owner mailing city:	Riverside
Tank owner mailing zip:	90504
Tank owner mailing state:	Ca
Tank operator name:	Ramona Expressway, LLC
Tank operator mailing address:	796 W. Ramona Expressway
Tank operator mailing city:	Riverside
Tank operator mailing zip:	92571
Tank operator mailing state:	Ca
Tankidnumber:	2a
Tank status:	Confirmed/Updated Information
Tank configuration:	One in a Compartmented Unit
Tank closure date:	Not reported
Tank installation date:	11/7/2007 12:00:00 AM
Tank num of compartments:	2
Tank contents:	Premium Unleaded
Tank capacity gallons:	10000
Tank type:	Double Wall
Tank pc construction:	Fiberglass
Tank pwpiping construction:	Fiberglass
Tank piping type:	Pressure
Tank piping construction:	Double Walled
Tank sacrificial anode:	No
Tank cp impressed current:	No
Tank cp shutoff:	Yes
Tank alarms:	No
Tank ball float:	No
Tank spill bucket:	Yes

Name:	LAKE CHEVRON
Address:	796 W RAMONA EXPRESSWY
City,State,Zip:	PERRIS, CA 92571
Facility ID:	FA0025793
Permitting Agency:	Riverside County Department of Environmental Health
CERSID:	10324834
Latitude:	33.8452900
Longitude:	-117.243260
Owner type:	Non-Government
Facility type:	Motor Vehicle Fueling
Num of inuse ust:	Not reported
Num of closed ust:	0

LAKE CHEVRON (Continued) **U004122551**

Num of oos ust:	0
Epa region:	9
Tribal lands:	No
Tank owner name:	Nusa, Inc.
Tank owner mailing address:	16810 Van Buren Blvd., Suite 200
Tank owner mailing city:	Riverside
Tank owner mailing zip:	90504
Tank owner mailing state:	Ca
Tank operator name:	Ramona Expressway, LLC
Tank operator mailing address:	796 W. Ramona Expressway
Tank operator mailing city:	Riverside
Tank operator mailing zip:	92571
Tank operator mailing state:	Ca
Tankidnumber:	2b
Tank status:	Confirmed/Updated Information
Tank configuration:	One in a Compartmented Unit
Tank closure date:	Not reported
Tank installation date:	11/7/2007 12:00:00 AM
Tank num of compartments:	2
Tank contents:	Diesel
Tank capacity gallons:	12000
Tank type:	Double Wall
Tank pc construction:	Fiberglass
Tank pwpiping construction:	Fiberglass
Tank piping type:	Pressure
Tank piping construction:	Double Walled
Tank sacrificial anode:	No
Tank cp impressed current:	No
Tank cp shutoff:	Yes
Tank alarms:	No
Tank ball float:	No
Tank spill bucket:	Yes

A3 **LAKE CHEVRON** **CERS HAZ WASTE** **S123515817**
East **796 W RAMONA EXPRESSWY** **CERS TANKS** **N/A**
< 1/8 **PERRIS, CA 92571** **CERS**
0.042 mi.
220 ft. **Site 2 of 2 in cluster A**

Relative:
Lower

Actual:
1480 ft.

CERS HAZ WASTE:

Name:	LAKE CHEVRON
Address:	796 W RAMONA EXPRESSWY
City,State,Zip:	PERRIS, CA 92571
Site ID:	396196
CERS ID:	10324834
CERS Description:	Hazardous Waste Generator

CERS TANKS:

Name:	LAKE CHEVRON
Address:	796 W RAMONA EXPRESSWY
City,State,Zip:	PERRIS, CA 92571
Site ID:	396196
CERS ID:	10324834
CERS Description:	Underground Storage Tank

CERS:

Name:	LAKE CHEVRON

LAKE CHEVRON (Continued) **S123515817**

Address: 796 W RAMONA EXPRESSWY
City,State,Zip: PERRIS, CA 92571
Site ID: 396196
CERS ID: 10324834
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019
Citation: 23 CCR 16 2712(b)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(2)
Violation Description: Failure to maintain monitoring records for release detection and/or maintain records of appropriate follow-up actions.
Violation Notes: Returned to compliance on 06/25/2019. OBSERVATION: Owner/operator unable to produce monitoring and/or maintenance records for L14 (Diesel Turbine) brine sensor. According to the D.O. report from February 5, 2019, maintenance was performed in January 2019 by Clean Air Testing but the work order was not available for review. CORRECTIVE ACTION: Owner/operator shall ensure monitoring and maintenance records are completed and maintained on site readily available for review. Provide copy of missing item(s) to the CUPA.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-12-2017
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 07/25/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-18-2021
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 09/01/2021. OBSERVATION: Observed UST operating permit and tank information pages submitted in CERS to be inaccurate and/or missing information. The operating permit page under Financial Responsibility Mechanism states yes for State Fund and CFO. Please mark no for State Fund and CFO and select yes for Insurance. The tank information pages for the 87, Premium, and Diesel state the Riser Pipe Primary Containment is Fiberglass, please update with Steel for the primary containment. CORRECTIVE ACTION: Owner/operator shall make the corrections noted above to the UST operating permit and tank information pages and re-submit updated forms in CERS.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

LAKE CHEVRON (Continued) **S123515817**

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-12-2018
Citation: HSC 6.7 25290.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e)
Violation Description: Failure to maintain the interstitial space such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment, i.e., vapor, pressure, hydrostatic (VPH) monitoring.
Violation Notes: Returned to compliance on 02/26/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-15-2015
Citation: 23 CCR 16 2632, 2634, 2636, 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632, 2634, 2636, 2666
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 06/15/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-23-2014
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description: Failure to review, revise, and recertify the business plan at least once every three years.
Violation Notes: Returned to compliance on 09/17/2014.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019
Citation: HSC 6.7 25299(a)(9) - California Health and Safety Code, Chapter 6.7, Section(s) 25299(a)(9)
Violation Description: Leak detection equipment disabled or tampered with in a manner that would prevent the monitoring system from detecting and/or alerting the owner/operator of a leak.
Violation Notes: Returned to compliance on 05/13/2019. OBSERVATION: Observed L14 sensor monitoring the Diesel STP brine sump to have been tampered with. Paper was wedged into the sensor so that it was unable to alarm when the sensor was removed from the brine. CORRECTIVE ACTION: Owner/operator shall cease and desist tampering with/disabling leak detection equipment and ensure monitoring system is maintained in a manner that will detect and alert the owner/operator of a leak. This is a Class 1 violation and further enforcement action will be taken. Sensors placed in proper position at time of inspection.
Violation Division: Riverside County Department of Env Health

LAKE CHEVRON (Continued) **S123515817**

Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 05/20/2019. OBSERVATION: Observed manifest number 006333109 SKS, dated 12/18/1 and manifest number 005707640 SKS dated 9/20/16 with no matching TSDF-signed copy. CORRECTIVE ACTION: Owner/operator shall locate TSDF-signed copy of aforementioned manifest.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 05/17/2019. OBSERVATION: Observed UST 91 tank submitted in CERS to be inaccurate and/or missing information. In CERS the 91 has a tank capacity of 8000 gallons. On the Veeder Root the 91 tank has a capacity of 10,180 gallons. CORRECTIVE ACTION: Owner/operator shall make the corrections noted above to the UST 91 and re-submit updated forms in CERS.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019
Citation: 23 CCR 16 2712(b)(1)(G) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(G)
Violation Description: Failure to comply with one or more of the following overfill prevention equipment requirements: Alert the transfer operator when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm; or Restrict delivery of flow to the tank at least 30 minutes before the tank overfills, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity; and activate an audible alarm at least five minutes before the tank overfills; or Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity; or Provide positive shut-off of flow to the tank so that none of the fittings located on the top of the tank are exposed to product due to overfilling. Install/retrofit overfill prevention equipment that does not use flow restrictors on vent piping to meet

LAKE CHEVRON (Continued) **S123515817**

overfill prevention equipment requirements when the overfill prevention equipment is installed, repaired, or replaced on and after October 1, 2018. For USTs installed before October 1, 2018, perform an inspection by October 13, 2018 and every 36 months thereafter. For USTs installed on and after October 1, 2018, perform an inspection at installation and every 36 months thereafter. Inspected within 30 days after a repair to the overfill prevention equipment. Inspected using an applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer. Inspected by a certified UST service technician. Maintain records of overfill prevention equipment inspection for 36 months.

Violation Notes: Returned to compliance on 05/13/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019
Citation: HSC 6.7 25290.1(e)2 - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e)2
Violation Description: Failure to maintain the interstitial space such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment, i.e., vapor, pressure, hydrostatic (VPH) monitoring.
Violation Notes: Returned to compliance on 05/13/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-23-2014
Citation: HSC 6.7 Multiple Sections - California Health and Safety Code, Chapter 6.7, Section(s) Multiple Sections
Violation Description: UST Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 09/17/2014.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-12-2017
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 06/12/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-13-2019

LAKE CHEVRON (Continued) **S123515817**

Citation:	23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Description:	For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been trained in accordance with 23 CCR 2715(c). For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days.
Violation Notes:	Returned to compliance on 06/25/2019. OBSERVATION: Observed that Designated Operator inspections are being improperly performed. The DO reports from December through April are missing the Owner/ Operator signature. CORRECTIVE ACTION: Owner/operator shall ensure that all DO reports are reviewed and signed.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,
Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	11-03-2021
Citation:	23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Description:	For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been trained in accordance with 23 CCR 2715(c). For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days.
Violation Notes:	Returned to compliance on 12/06/2021. OBSERVATION: Observed that Designated Operator inspections are being improperly performed. DO Reports are not being signed within 72 hours of being received. Observed DO report dated 10/25/2021 that has not been signed by the Owner/Operator. CORRECTIVE ACTION: Owner/operator shall ensure that the Designated Operator is properly conducting inspections, noting observations, reviewing paperwork and alarm history reports, attaching required documentation and any other DO required functions.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

LAKE CHEVRON (Continued) **S123515817**

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-15-2015
Citation:	HSC 6.7 25299 - California Health and Safety Code, Chapter 6.7, Section(s) 25299
Violation Description:	Failure to comply with one or more of the operating permit conditions.
Violation Notes:	Returned to compliance on 06/23/2015.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-15-2016
Citation:	HSC 6.7 25290.1(c)(3), 25290.2(c)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(c)(3), 25290.2(c)(3)
Violation Description:	Failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003 and before July 1, 2004, or on or after July 1, 2004.
Violation Notes:	Returned to compliance on 06/15/2016.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-23-2014
Citation:	23 CCR 16 2636(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)
Violation Description:	Failure to continuously monitor the interstitial space of the tank, piping and/or sumps sump such that the leak detection activates an audible/visual alarm when a leak is detected.
Violation Notes:	Returned to compliance on 06/23/2014.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	07-17-2013
Citation:	23 CCR 16 2636(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)
Violation Description:	Failure to continuously monitor the interstitial space of the tank, piping and/or sumps sump such that the leak detection activates an audible/visual alarm when a leak is detected.
Violation Notes:	Returned to compliance on 07/17/2013.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-12-2017
Citation:	HSC 6.7 25290.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e)
Violation Description:	Failure to maintain the interstitial space such that a breach in the primary or secondary containment is detected before the liquid or

LAKE CHEVRON (Continued) **S123515817**

vapor phase of the hazardous substance stored in the UST tank is released into the environment, i.e., vapor, pressure, hydrostatic (VPH) monitoring.

Violation Notes: Returned to compliance on 06/12/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-27-2020
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 05/27/2020. OBSERVATION: Observed 87 Fill Sump 208 sensor fail to activate an audible and visual alarm when tested. Technician replaced sensor at time of inspection. Sensor tested and inspection and activated audible and visual alarm as well as shut down 87 turbine. Violation corrected on site. CORRECTIVE ACTION: Owner/operator shall repair/replace inoperable 87 fill sump sensor and certify that sensor will activate an audible visual alarm when a leak is detected. This violation was corrected on site.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-15-2015
Citation: 23 CCR 16 2632, 2634, 2636, 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632, 2634, 2636, 2666
Violation Description: Failure of the leak detection equipment to be properly programmed or properly operated.
Violation Notes: Returned to compliance on 06/23/2015.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 05-18-2021
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Description: For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been trained in accordance with 23 CCR 2715(c). For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct

LAKE CHEVRON (Continued) **S123515817**

	the designated UST operator visual inspection at least once every 30 days.
Violation Notes:	Returned to compliance on 12/06/2021. OBSERVATION: Observed that Designated Operator inspections are being improperly performed. Observed several DO reports that are not being signed by the owner/operator within 72 hours. CORRECTIVE ACTION: Owner/operator shall ensure that the Designated Operator is properly conducting inspections, noting observations, reviewing paperwork and alarm history reports, attaching required documentation and any other DO required functions. DO reports shall be signed by the owner/operator within 72 hours of the DO inspection.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,
Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-15-2015
Citation:	HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291
Violation Description:	Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.
Violation Notes:	Returned to compliance on 06/15/2015.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,
Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	05-10-2022
Citation:	23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)
Violation Description:	Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).
Violation Notes:	Returned to compliance on 05/10/2022. OBSERVATION: Observed documentation stating monitoring liquid is being added to the UST system by the General Manager of the facility to clear UDC low liquid alarms. CORRECTIVE ACTION: Owner/operator shall only have a qualified ICC certified technician perform maintenance, such as added monitoring liquid to the UST system.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,
Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-15-2015
Citation:	HSC 6.7 25299(a)(9) - California Health and Safety Code, Chapter 6.7, Section(s) 25299(a)(9)
Violation Description:	Leak detection equipment disabled or tampered with in a manner that would prevent the monitoring system from detecting and/or alerting the owner/operator of a leak.
Violation Notes:	Returned to compliance on 06/23/2015.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST

LAKE CHEVRON (Continued) **S123515817**

Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 09-13-2021
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Description: For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been trained in accordance with 23 CCR 2715(c). For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days.
Violation Notes: Returned to compliance on 12/06/2021. OBSERVATION: Observed that Designated Operator inspections are being improperly performed DO reports are not being signed by the owner/operator within 72 hours of the DO inspection report. CORRECTIVE ACTION: Owner/operator shall ensure that the Designated Operator is properly conducting inspections, noting observations, reviewing paperwork and alarm history reports, attaching required documentation and any other DO required functions.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-12-2018
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 02/26/2019.
Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Violation Date: 06-15-2016
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 07/21/2016. The Propane tank was not properly labeled.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

LAKE CHEVRON (Continued) **S123515817**

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	05-13-2019
Citation:	23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description:	Failure of the double-walled pressurized piping to be continuously monitored with a system that activates an audible and visual alarm or stops flow at the dispenser when a leak is detected.
Violation Notes:	Returned to compliance on 05/13/2019. OBSERVATION: Observed liquid sensor in the Diesel STP sump fail to activate an audible and visual alarm when tested. CORRECTIVE ACTION: Paper was wedged into the sensor so that it was unable to alarm when the sensor was removed from the brine. Technician removed the paper and the sensor went into alarm once it was removed from the brine.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	05-18-2021
Citation:	23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description:	Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes:	Returned to compliance on 06/15/2021. OBSERVATION: Observed S4 high liquid 91 Product line fail to activate an audible and visual alarm when tested. CORRECTIVE ACTION: Owner/operator shall repair/replace inoperable S4 high liquid sensor and certify that sensor will activate an audible visual alarm when a leak is detected.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	05-13-2019
Citation:	23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Description:	Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes:	Returned to compliance on 05/13/2019. OBSERVATION: Observed L14 (Diesel STP Brine) fail to activate an audible and visual alarm when tested. CORRECTIVE ACTION: Corrected on site by technician.
Violation Division:	Riverside County Department of Env Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Violation Date:	06-15-2016
Citation:	23 CCR 16 2631(g), 2632(c)(2)(A) & (B) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2631(g), 2632(c)(2)(A) & (B)
Violation Description:	Failure of the double-walled interstitial space of the tank to be continuously monitored with an audible and visual alarm.
Violation Notes:	Returned to compliance on 06/30/2016.

LAKE CHEVRON (Continued) **S123515817**

Violation Division: Riverside County Department of Env Health
Violation Program: UST
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-10-2022
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: This facility is a VPH gas station with 3 USTs; 87, 91, and Diesel. Technician performed OPEI (not witness be inspector) today. Owner/ Operator will need to update the Overfill Protection in CERS to reflect Fill Tube Shut-Off Valve.
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-12-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-23-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 07-17-2013
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency

LAKE CHEVRON (Continued) **S123515817**

Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 11-03-2021
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-10-2022
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: This facility is a gas station with a convenience store that generates a flammable solid hazardous waste.
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-13-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-13-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-23-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health

LAKE CHEVRON (Continued) **S123515817**

Eval Program: HW
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 06-30-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 07-18-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 07-21-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-10-2022
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: This facility is a gas station with a convenience store that handles fuel, CO2, and car wash soap. Please submit the Hazardous Materials Inventory and Emergency Response and Training Plans by 8/31/22.
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-27-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Note: Small amount of brine removed from 91 STP sump. Recent repairs on sump. Ensure brine addition/removal is documented to determine if repairs were successful.
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-12-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported

LAKE CHEVRON (Continued) **S123515817**

Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-23-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 06-23-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 09-13-2021
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-13-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

LAKE CHEVRON (Continued) **S123515817**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-18-2021
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: This facility is a gas station and convenience store with 87, 91 and Diesel fuel tanks.
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Eval General Type: Other/Unknown
Eval Date: 12-06-2021
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS,

Enforcement Action:
Site ID: 396196
Site Name: Lake Chevron
Site Address: 796 W RAMONA EXPRESSWY
Site City: PERRIS
Site Zip: 92571
Enf Action Date: 07-17-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: UST
Enf Action Source: CERS,

Site ID: 396196
Site Name: Lake Chevron
Site Address: 796 W RAMONA EXPRESSWY
Site City: PERRIS
Site Zip: 92571
Enf Action Date: 06-23-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Riverside County Department of Env Health
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 396196
Site Name: Lake Chevron

LAKE CHEVRON (Continued) **S123515817**

Site Address:	796 W RAMONA EXPRESSWY
Site City:	PERRIS
Site Zip:	92571
Enf Action Date:	06-15-2015
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $1,500.00.
Enf Action Division:	Riverside County Department of Env Health
Enf Action Program:	UST
Enf Action Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Site Address:	796 W RAMONA EXPRESSWY
Site City:	PERRIS
Site Zip:	92571
Enf Action Date:	08-18-2015
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Not reported
Enf Action Division:	Riverside County Department of Env Health
Enf Action Program:	UST
Enf Action Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Site Address:	796 W RAMONA EXPRESSWY
Site City:	PERRIS
Site Zip:	92571
Enf Action Date:	05-17-2019
Enf Action Type:	AEO - Unified Program
Enf Action Description:	Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:	Fines/Penalties Assessed: $2,000.00.
Enf Action Division:	Riverside County Department of Env Health
Enf Action Program:	UST
Enf Action Source:	CERS,

Site ID:	396196
Site Name:	Lake Chevron
Site Address:	796 W RAMONA EXPRESSWY
Site City:	PERRIS
Site Zip:	92571
Enf Action Date:	06-23-2014
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Riverside County Department of Env Health
Enf Action Program:	UST
Enf Action Source:	CERS,

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	4065 County Circle Drive, Room 104
Affiliation City:	Riverside
Affiliation State:	CA

LAKE CHEVRON (Continued) **S123515817**

Affiliation Country:	Not reported
Affiliation Zip:	92503
Affiliation Phone:	(951) 358-5055,
Affiliation Type Desc:	Document Preparer
Entity Name:	Greg Roberts
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Property Owner
Entity Name:	Nusa, Inc.
Entity Title:	Not reported
Affiliation Address:	16810 Van Buren Blvd., Suite 200
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92504
Affiliation Phone:	(951) 780-1400,
Affiliation Type Desc:	Environmental Contact
Entity Name:	Elizabeth Alabbasi
Entity Title:	Not reported
Affiliation Address:	P.O. Box 2039
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92516
Affiliation Phone:	,
Affiliation Type Desc:	Operator
Entity Name:	Ramona Expressway, LLC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(951) 780-1400,
Affiliation Type Desc:	UST Tank Owner
Entity Name:	Nusa, Inc.
Entity Title:	Not reported
Affiliation Address:	16810 Van Buren Blvd., Suite 200
Affiliation City:	Riverside
Affiliation State:	Ca
Affiliation Country:	United States
Affiliation Zip:	90504
Affiliation Phone:	(951) 780-1400,
Affiliation Type Desc:	Identification Signer
Entity Name:	Elizabeth Alabbasi
Entity Title:	Owner/Operator

LAKE CHEVRON (Continued) **S123515817**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Legal Owner
Entity Name:	Nusa, Inc
Entity Title:	Not reported
Affiliation Address:	16810 Van Buren Blvd., Suite 200
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92504
Affiliation Phone:	(951) 780-1400,

Affiliation Type Desc:	Parent Corporation
Entity Name:	Lake Chevron
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	UST Property Owner Name
Entity Name:	Nusa, Inc.
Entity Title:	Not reported
Affiliation Address:	16810 Van Buren Blvd., Suite 200
Affiliation City:	Riverside
Affiliation State:	Ca
Affiliation Country:	United States
Affiliation Zip:	92504
Affiliation Phone:	(951) 780-1400,

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	16810 Van Buren Blvd
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92504
Affiliation Phone:	,

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	Elizabeth Alabbasi
Entity Title:	Secretary/Treasurer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(951) 265-4644,

LAKE CHEVRON (Continued) **S123515817**

Affiliation Type Desc:	UST Tank Operator
Entity Name:	Ramona Expressway, LLC
Entity Title:	Not reported
Affiliation Address:	796 W. Ramona Expressway
Affiliation City:	Riverside
Affiliation State:	Ca
Affiliation Country:	United States
Affiliation Zip:	92571
Affiliation Phone:	(951) 780-1400,

B4 **FERGUSON PERRIS DISTRIBUTION CENTER #688** **CERS HAZ WASTE** **S125544192**
ENE **4100 N WEBSTER AVE** **HAZNET** **N/A**
< 1/8 **PERRIS, CA 92571** **CERS**
0.054 mi. **HWTS**
283 ft. **Site 1 of 3 in cluster B**

Relative:
Lower

Actual:
1481 ft.

CERS HAZ WASTE:

Name:	FERGUSON - 0688
Address:	4100 N WEBSTER AVE STE A
City,State,Zip:	PERRIS, CA 92571
Site ID:	563238
CERS ID:	10835137
CERS Description:	Hazardous Waste Generator

Name:	FERGUSON - 1031
Address:	4100 N WEBSTER AVE
City,State,Zip:	PERRIS, CA 92571
Site ID:	564346
CERS ID:	10837987
CERS Description:	Hazardous Waste Generator

HAZNET:

Name:	FERGUSON PERRIS DISTRIBUTION CENTER #688
Address:	4100 N WEBSTER AVE
Address 2:	Not reported
City,State,Zip:	PERRIS, CA 92571
Contact:	DREW HARTSOCK
Telephone:	7573679330
Mailing Name:	Not reported
Mailing Address:	12500 JEFFERSON AVE

Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	135 - Unspecified aqueous solution
Disposal Method:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.22

Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0335

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	CAD044429835
CA Waste Code:	135 - Unspecified aqueous solution
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.05
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	343 - Unspecified organic liquid mixture
Disposal Method:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.019
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	CAD044429835
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.558
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	343 - Unspecified organic liquid mixture
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.207
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	122 - Alkaline solution without metals pH >= 12.5
Disposal Method:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.065
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	UTD981552177
CA Waste Code:	551 - Laboratory waste chemicals
Disposal Method:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.0415
Year:	2021
Gepaid:	CAL000447611
TSD EPA ID:	ARD069748192
CA Waste Code:	331 - Off-specification, aged or surplus organics
Disposal Method:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Tons: 0.02

Click this hyperlink while viewing on your computer to access
8 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	2021
Gen EPA ID:	CAL000447611
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0945
Waste Quantity:	189
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0225
Waste Quantity:	45
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.2835
Waste Quantity:	567
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331,343 - Not reported
RCRA Code:	D001,D005,D006,
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0195
Waste Quantity:	39
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001,D018,U002,
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0445
Waste Quantity:	89
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	791 - Liquids with pH < 2 792 Liquids with pH < 2 with metals
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0785
Waste Quantity:	157
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.102
Waste Quantity:	204
Quantity Unit:	P

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	11/19/2020
Creation Date:	12/21/2020
Receipt Date:	12/1/2020
Manifest ID:	014741273FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	Clean Harbors Environmental Services, Inc.
TSDF EPA ID:	CAD044429835
Trans Name:	Clean Harbors Wilmington LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	792 - Not reported
RCRA Code:	D002,D008
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0445
Waste Quantity:	89
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	11/19/2020
Creation Date:	12/21/2020
Receipt Date:	12/1/2020
Manifest ID:	014741273FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	Clean Harbors Environmental Services, Inc.
TSDF EPA ID:	CAD044429835
Trans Name:	Clean Harbors Wilmington LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	D009
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0115
Waste Quantity:	23
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	11/19/2020

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Creation Date:	12/30/2020
Receipt Date:	12/10/2020
Manifest ID:	014741271FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	Clean Harbors Environmental Services, Inc.
TSDF EPA ID:	UTD981552177
Trans Name:	Clean Harbors Aragonite LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001,D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.078
Waste Quantity:	156
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2020
Gen EPA ID:	CAL000447611
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0945
Waste Quantity:	189
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0225
Waste Quantity:	45
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.2835
Waste Quantity:	567
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331,343 - Not reported
RCRA Code:	D001,D005,D006,
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Quantity Tons:	0.0195
Waste Quantity:	39
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001,D018,U002,
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0445
Waste Quantity:	89
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	791 - Liquids with pH < 2 792 Liquids with pH < 2 with metals
RCRA Code:	D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.0785
Waste Quantity:	157
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Shipment Date:	4/14/2020
Creation Date:	6/2/2020
Receipt Date:	5/13/2020
Manifest ID:	013213669FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	CAR000187922
Trans 2 Name:	Rust and Sons Trucking Inc
TSDF EPA ID:	ARD069748192
Trans Name:	Clean Harbors El Dorado LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.102
Waste Quantity:	204
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	11/19/2020
Creation Date:	12/21/2020
Receipt Date:	12/1/2020
Manifest ID:	014741273FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	Clean Harbors Environmental Services, Inc.
TSDF EPA ID:	CAD044429835
Trans Name:	Clean Harbors Wilmington LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	792 - Not reported
RCRA Code:	D002,D008
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0445
Waste Quantity:	89
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	11/19/2020
Creation Date:	12/21/2020
Receipt Date:	12/1/2020
Manifest ID:	014741273FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	Clean Harbors Environmental Services, Inc.

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

TSDF EPA ID:	CAD044429835
Trans Name:	Clean Harbors Wilmington LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	D009
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0115
Waste Quantity:	23
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	11/19/2020
Creation Date:	12/30/2020
Receipt Date:	12/10/2020
Manifest ID:	014741271FLE
Trans EPA ID:	MAD039322250
Trans Name:	Clean Harbors Environmental Services, Inc.
Trans 2 EPA ID:	MAD039322250
Trans 2 Name:	Clean Harbors Environmental Services, Inc.
TSDF EPA ID:	UTD981552177
Trans Name:	Clean Harbors Aragonite LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001,D002
Meth Code:	H040 - Incineration--Thermal Destruction Other Than Use As A Fuel
Quantity Tons:	0.078
Waste Quantity:	156
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Detail Two:

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Shipment Date:	4/14/2020
Receipt Date:	5/13/2020
Manifest Number:	013213669FLE
Generator EPA ID:	CAL000447611
Name:	FERGUSON DISTRIBUTION CENTER #688
Address:	4100 N. WEBSTER AVENUE
Address 2:	Not reported
City:	PERRIS
Zip:	92571
Telephone:	800-483-3718
Contact:	Store Manager
Contact Telephone:	951-436-4138
Transporter 1 EPA ID:	MAD039322250

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Transporter 1 Emergency Number:	Not reported
Transporter 2 EPA ID:	CAR000187922
Transporter 2 Emergency Number:	Not reported
TSDF EPA ID:	ARD069748192
TSDF Name:	Clean Harbors El Dorado LLC
TSDF Address 1:	309 American Circle
TSDF Address 2:	Not reported
TSDF City:	El Dorado
TSDF Zip:	71730
TSDF Telephone:	800-483-3718

Federal:

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D001

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D005

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D006

Year:	2020

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D007

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D008

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D035

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Federal Code:	D039
Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D040
Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D001
Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D018
Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	U002

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	U154

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	U159

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.09450
Quantity Waste:	189.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	4
Method Code:	H040

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Quantity Tons:	0.28350
Quantity Waste:	567.000000
Quantity Unit:	P
Number of Containers:	3
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	5
Method Code:	H040
Quantity Tons:	0.02250
Quantity Waste:	45.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	6
Method Code:	H040
Quantity Tons:	0.07850
Quantity Waste:	157.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002

State:

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	343

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.09450
Quantity Waste:	189.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	122

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	4
Method Code:	H040
Quantity Tons:	0.28350
Quantity Waste:	567.000000
Quantity Unit:	P
Number of Containers:	3
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	122

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	5
Method Code:	H040
Quantity Tons:	0.02250
Quantity Waste:	45.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	122

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	6
Method Code:	H040
Quantity Tons:	0.07850
Quantity Waste:	157.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	791

Year:	2020
EM Manifest ID:	a2ea09e2-5c71-452e-b664-fd1e64932d51
Generator EPA ID:	CAL000447611
Shipment Date:	2020-04-14
Manifest Number:	013213669FLE
Line Number:	7
Method Code:	H040
Quantity Tons:	0.10200
Quantity Waste:	204.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Shipment Date:	11/19/2020
Receipt Date:	12/10/2020
Manifest Number:	014741271FLE
Generator EPA ID:	CAL000447611
Name:	FERGUSON DISTRIBUTION CENTER #688
Address:	4100 N. WEBSTER AVENUE
Address 2:	Not reported
City:	PERRIS
Zip:	92571

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Telephone:	800-483-3718
Contact:	Store Manager
Contact Telephone:	951-436-4138
Transporter 1 EPA ID:	MAD039322250
Transporter 1 Emergency Number:	Not reported
Transporter 2 EPA ID:	MAD039322250
Transporter 2 Emergency Number:	Not reported
TSDF EPA ID:	UTD981552177
TSDF Name:	Clean Harbors Aragonite LLC
TSDF Address 1:	11600 North Aptus Road
TSDF Address 2:	Not reported
TSDF City:	Grantsville
TSDF Zip:	84029
TSDF Telephone:	800-483-3718

Federal:

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.09450
Quantity Waste:	189.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D001

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.07800
Quantity Waste:	156.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D001

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.07800
Quantity Waste:	156.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Quantity Type:	Pounds
Federal Code:	D002
Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	4
Method Code:	H040
Quantity Tons:	0.02150
Quantity Waste:	43.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002
Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	5
Method Code:	H040
Quantity Tons:	0.01600
Quantity Waste:	32.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002

State:

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	1
Method Code:	H141
Quantity Tons:	0.00200
Quantity Waste:	4.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331
Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.09450

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Quantity Waste:	189.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.07800
Quantity Waste:	156.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	4
Method Code:	H040
Quantity Tons:	0.02150
Quantity Waste:	43.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE
Line Number:	5
Method Code:	H040
Quantity Tons:	0.01600
Quantity Waste:	32.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	2b1f7563-e4f2-42ab-8333-807a2466a985
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741271FLE

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Line Number:	6
Method Code:	H040
Quantity Tons:	0.52500
Quantity Waste:	1050.000000
Quantity Unit:	P
Number of Containers:	5
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	719a9aed-99fa-4595-8902-e120c39fac91
Shipment Date:	11/19/2020
Receipt Date:	12/1/2020
Manifest Number:	014741273FLE
Generator EPA ID:	CAL000447611
Name:	FERGUSON DISTRIBUTION CENTER #688
Address:	4100 N. WEBSTER AVENUE
Address 2:	Not reported
City:	PERRIS
Zip:	92571
Telephone:	800-483-3718
Contact:	Store Manager
Contact Telephone:	951-436-4138
Transporter 1 EPA ID:	MAD039322250
Transporter 1 Emergency Number:	Not reported
Transporter 2 EPA ID:	MAD039322250
Transporter 2 Emergency Number:	Not reported
TSDF EPA ID:	CAD044429835
TSDF Name:	Clean Harbors Wilmington LLC
TSDF Address 1:	1737 East Denni Street
TSDF Address 2:	Not reported
TSDF City:	Wilmington
TSDF Zip:	90744
TSDF Telephone:	800-483-3718

Federal:

Year:	2020
EM Manifest ID:	719a9aed-99fa-4595-8902-e120c39fac91
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741273FLE
Line Number:	1
Method Code:	H141
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D002

Year:	2020
EM Manifest ID:	719a9aed-99fa-4595-8902-e120c39fac91
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741273FLE

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Line Number:	1
Method Code:	H141
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D008

Year:	2020
EM Manifest ID:	719a9aed-99fa-4595-8902-e120c39fac91
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741273FLE
Line Number:	2
Method Code:	H141
Quantity Tons:	0.01150
Quantity Waste:	23.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiber or plastic boxes, cartons, cases
Quantity Type:	Pounds
Federal Code:	D009

State:

Year:	2020
EM Manifest ID:	719a9aed-99fa-4595-8902-e120c39fac91
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741273FLE
Line Number:	1
Method Code:	H141
Quantity Tons:	0.04450
Quantity Waste:	89.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	792

Year:	2020
EM Manifest ID:	719a9aed-99fa-4595-8902-e120c39fac91
Generator EPA ID:	CAL000447611
Shipment Date:	2020-11-19
Manifest Number:	014741273FLE
Line Number:	2
Method Code:	H141
Quantity Tons:	0.01150
Quantity Waste:	23.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiber or plastic boxes, cartons, cases
Quantity Type:	Pounds
State Code:	181

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Year:	2020
EM Manifest ID:	947486
Shipment Date:	11/19/2019
Receipt Date:	1/4/2020
Manifest Number:	013213495FLE
Generator EPA ID:	CAL000447611
Name:	FERGUSON DISTRIBUTION CENTER #688
Address:	4100 N. WEBSTER AVENUE
Address 2:	Not reported
City:	PERRIS
Zip:	92571
Telephone:	800-483-3718
Contact:	Store Manager
Contact Telephone:	951-436-4138
Transporter 1 EPA ID:	MAD039322250
Transporter 1 Emergency Number:	Not reported
Transporter 2 EPA ID:	MOD095038998
Transporter 2 Emergency Number:	Not reported
TSDF EPA ID:	ARD069748192
TSDF Name:	Clean Harbors El Dorado LLC
TSDF Address 1:	309 American Circle
TSDF Address 2:	Not reported
TSDF City:	El Dorado
TSDF Zip:	71730
TSDF Telephone:	800-483-3718

Federal:

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D001

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D005

Year:	2020

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D006

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D007

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D008

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Federal Code:	D035
Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D039
Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	1
Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D040
Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.14700
Quantity Waste:	294.000000
Quantity Unit:	P
Number of Containers:	2
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
Federal Code:	D001
Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
Federal Code: D002

Year: 2020
EM Manifest ID: 947486
Generator EPA ID: CAL000447611
Shipment Date: 2019-11-19
Manifest Number: 013213495FLE
Line Number: 4
Method Code: H040
Quantity Tons: 0.01450
Quantity Waste: 29.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
Federal Code: D002

Year: 2020
EM Manifest ID: 947486
Generator EPA ID: CAL000447611
Shipment Date: 2019-11-19
Manifest Number: 013213495FLE
Line Number: 5
Method Code: H040
Quantity Tons: 0.02050
Quantity Waste: 41.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
Federal Code: D002

State:
Year: 2020
EM Manifest ID: 947486
Generator EPA ID: CAL000447611
Shipment Date: 2019-11-19
Manifest Number: 013213495FLE
Line Number: 1
Method Code: H040
Quantity Tons: 0.01850
Quantity Waste: 37.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Year: 2020
EM Manifest ID: 947486
Generator EPA ID: CAL000447611
Shipment Date: 2019-11-19
Manifest Number: 013213495FLE
Line Number: 1

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Method Code:	H040
Quantity Tons:	0.01850
Quantity Waste:	37.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	343

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	2
Method Code:	H040
Quantity Tons:	0.14700
Quantity Waste:	294.000000
Quantity Unit:	P
Number of Containers:	2
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	3
Method Code:	H040
Quantity Tons:	0.01950
Quantity Waste:	39.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611
Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	4
Method Code:	H040
Quantity Tons:	0.01450
Quantity Waste:	29.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

Year:	2020
EM Manifest ID:	947486
Generator EPA ID:	CAL000447611

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Shipment Date:	2019-11-19
Manifest Number:	013213495FLE
Line Number:	5
Method Code:	H040
Quantity Tons:	0.02050
Quantity Waste:	41.000000
Quantity Unit:	P
Number of Containers:	1
Type of Container:	Fiberboard or plastic drums, barrels, kegs
Quantity Type:	Pounds
State Code:	331

CERS:

Name:	FERGUSON - 1031
Address:	4100 N WEBSTER AVE
City,State,Zip:	PERRIS, CA 92571
Site ID:	564346
CERS ID:	10837987
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	564346
Site Name:	Ferguson - 1031
Violation Date:	08-31-2021
Citation:	Un-Specified
Violation Description:	Business Plan Program - Administration/Documentation - General Local Ordinance
Violation Notes:	Returned to compliance on 11/05/2021.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	564346
Site Name:	Ferguson - 1031
Violation Date:	03-02-2020
Citation:	Un-Specified
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General Local Ordinance
Violation Notes:	Returned to compliance on 04/15/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HW
Violation Source:	CERS,

Site ID:	564346
Site Name:	Ferguson - 1031
Violation Date:	08-31-2021
Citation:	HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Description:	Failure to establish and/or electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material. *Verify agricultural handler exemption HSC 25507.1
Violation Notes:	Returned to compliance on 09/27/2021.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-31-2021
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HMRRP
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-02-2020
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HW
Eval Source:	CERS,

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	4065 County Circle Drive, Room 104
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92503
Affiliation Phone:	(951) 358-5055,

Affiliation Type Desc:	Environmental Contact
Entity Name:	Drew Hartsock
Entity Title:	Not reported
Affiliation Address:	751 Lakefront Commons
Affiliation City:	Newport News
Affiliation State:	VA
Affiliation Country:	Not reported
Affiliation Zip:	23606
Affiliation Phone:	,

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	8520 Allison Pointe Blvd Ste 223
Affiliation City:	Indianapolis
Affiliation State:	IN
Affiliation Country:	Not reported
Affiliation Zip:	46250-4299
Affiliation Phone:	,

Affiliation Type Desc:	Identification Signer
Entity Name:	Drew Hartsock
Entity Title:	HazMat & Environmental Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Operator
Entity Name:	FERGUSON ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(757) 874-7795,

Affiliation Type Desc:	Document Preparer
Entity Name:	Drew Hartsock
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Legal Owner
Entity Name:	FERGUSON ENTERPRISES LLC
Entity Title:	Not reported
Affiliation Address:	751 Lakefront Commons
Affiliation City:	Newport News
Affiliation State:	VA
Affiliation Country:	United States
Affiliation Zip:	23606
Affiliation Phone:	(757) 874-7795,

Affiliation Type Desc:	Parent Corporation
Entity Name:	Ferguson Distribution Center 625
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Name:	FERGUSON - 0688
Address:	4100 N WEBSTER AVE STE A
City,State,Zip:	PERRIS, CA 92571
Site ID:	563238
CERS ID:	10835137
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 04/21/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HW
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 03/31/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	Un-Specified
Violation Description:	Business Plan Program - Administration/Documentation - General Local Ordinance
Violation Notes:	Returned to compliance on 04/15/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 03/31/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 03/31/2020.
Violation Division:	Riverside County Department of Env Health

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 03/31/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 03/31/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	Un-Specified
Violation Description:	Business Plan Program - Operations/Maintenance - General Local Ordinance
Violation Notes:	Returned to compliance on 04/21/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description:	Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 03/31/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS,
Site ID:	563238
Site Name:	Ferguson - 0688
Violation Date:	03-02-2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 03/31/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 563238
Site Name: Ferguson - 0688
Violation Date: 03-02-2020
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Description: Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.
Violation Notes: Returned to compliance on 03/31/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 563238
Site Name: Ferguson - 0688
Violation Date: 03-02-2020
Citation: Un-Specified
Violation Description: Hazardous Waste Generator Program - Administration/Documentation - General Local Ordinance
Violation Notes: Returned to compliance on 04/15/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-02-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-02-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS,

Affiliation:
Affiliation Type Desc: Identification Signer
Entity Name: Drew Hartsock
Entity Title: HazMat & Environmental Manager
Affiliation Address: Not reported

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Legal Owner
Entity Name:	FERGUSON ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	751 Lakefront Commons
Affiliation City:	Newport News
Affiliation State:	VA
Affiliation Country:	United States
Affiliation Zip:	23606
Affiliation Phone:	(757) 874-7795,

Affiliation Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	4065 County Circle Drive, Room 104
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92503
Affiliation Phone:	(951) 358-5055,

Affiliation Type Desc:	Document Preparer
Entity Name:	Drew Hartsock
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	8520 Allison Pointe Blvd, Ste 223 PMB 45239
Affiliation City:	Indianapolis
Affiliation State:	IN
Affiliation Country:	Not reported
Affiliation Zip:	46250-4299
Affiliation Phone:	,

Affiliation Type Desc:	Parent Corporation
Entity Name:	Ferguson Distribution Center 625
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Operator

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Entity Name:	FERGUSON ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(757) 874-7795,

Affiliation Type Desc:	Environmental Contact
Entity Name:	Nikki Hatchett
Entity Title:	Not reported
Affiliation Address:	751 Lakefront Commons
Affiliation City:	Newport News
Affiliation State:	VA
Affiliation Country:	Not reported
Affiliation Zip:	23606
Affiliation Phone:	,

HWTS:

Name:	FERGUSON PERRIS DISTRIBUTION CENTER #688
Address:	4100 N WEBSTER AVE
Address 2:	Not reported
City,State,Zip:	PERRIS, CA 92571
EPA ID:	CAL000447611
Inactive Date:	Not reported
Create Date:	07/22/2019
Last Act Date:	Not reported
Mailing Name:	Not reported
Mailing Address:	12500 JEFFERSON AVE
Mailing Address 2:	Not reported
Mailing City,State,Zip:	NEWPORT NEWS, VA 23602
Owner Name:	FERGUSON ENTERPRISES INC
Owner Address:	12500 JEFFERSON AVE
Owner Address 2:	Not reported
Owner City,State,Zip:	NEWPORT NEWS, VA 23602
Owner Phone:	Not reported
Owner Fax:	Not reported
Contact Name:	DREW HARTSOCK
Contact Address:	12500 JEFFERSON AVE
Contact Address 2:	Not reported
City,State,Zip:	NEWPORT NEWS, VA 23602
Contact Phone:	Not reported
Contact Fax:	Not reported
Facility Status:	Active
Facility Type:	PERMANENT
Category:	STATE
Latitude:	33.84649871
Longitude:	-117.2439026

NAICS:

EPA ID:	CAL000447611
Create Date:	2019-07-22 16:46:57.030
NAICS Code:	444190
NAICS Description:	Other Building Material Dealers
Issued EPA ID Date:	2019-07-22 16:46:56.76300

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **S125544192**

Inactive Date:	Not reported
Facility Name:	FERGUSON PERRIS DISTRIBUTION CENTER #688
Facility Address:	4100 N WEBSTER AVE
Facility Address 2:	Not reported
Facility City:	PERRIS
Facility County:	Not reported
Facility State:	CA
Facility Zip:	92571

B5 **FERGUSON PERRIS DISTRIBUTION CENTER #688** **RCRA NonGen / NLR** **1025874480**
ENE **4100 N WEBSTER AVE** **CAL000447611**
< 1/8 **PERRIS, CA 92571**
0.054 mi.
283 ft. **Site 2 of 3 in cluster B**

Relative:
Lower

Actual:
1481 ft.

RCRA Listings:

Date Form Received by Agency:	20190722
Handler Name:	Ferguson Perris Distribution Center #688
Handler Address:	4100 N WEBSTER AVE
Handler City,State,Zip:	PERRIS, CA 92571
EPA ID:	CAL000447611
Contact Name:	GERARDO MUNOZ
Contact Address:	4100 N WEBSTER AVE
Contact City,State,Zip:	PERRIS, CA 92571
Contact Telephone:	951-436-4132
Contact Fax:	Not reported
Contact Email:	GERARDO.MUNOZ@FERGUSON.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	4100 N WEBSTER AVE
Mailing City,State,Zip:	PERRIS, CA 92571
Owner Name:	Ferguson Enterprises Inc
Owner Type:	Other
Operator Name:	Gerardo Munoz
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site State-Reg Handler:	---

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **1025874480**

Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20190729
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name: GERARDO MUNOZ	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4100 N WEBSTER AVE
Owner/Operator City,State,Zip:	PERRIS, CA 92571
Owner/Operator Telephone:	951-436-4132
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: FERGUSON ENTERPRISES INC	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	12500 JEFFERSON AVE
Owner/Operator City,State,Zip:	NEWPORT NEWS, VA 23602
Owner/Operator Telephone:	757-874-7795
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20190722
Handler Name:	FERGUSON PERRIS DISTRIBUTION CENTER #688

FERGUSON PERRIS DISTRIBUTION CENTER #688 (Continued) **1025874480**

Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	444190
NAICS Description:	OTHER BUILDING MATERIAL DEALERS

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

B6 **PERRIS 1031** **RCRA NonGen / NLR** **1025876462**
ENE **4100 N WEBSTER AVE** **CAL000449598**
< 1/8 **PERRIS, CA 92571**
0.054 mi.
283 ft. **Site 3 of 3 in cluster B**

Relative:
Lower

Actual:
1481 ft.

RCRA Listings:

Date Form Received by Agency:	20191003
Handler Name:	Perris 1031
Handler Address:	4100 N WEBSTER AVE
Handler City,State,Zip:	PERRIS, CA 92571
EPA ID:	CAL000449598
Contact Name:	EDWIN ESPEL
Contact Address:	4100 N WEBSTER AVE
Contact City,State,Zip:	PERRIS, CA 92571
Contact Telephone:	951-436-4374
Contact Fax:	951-905-1672
Contact Email:	EDWIN.ESPEL@FERGUSON.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	4100 N WEBSTER AVE
Mailing City,State,Zip:	PERRIS, CA 92571
Owner Name:	Ferguson Enterprises Inc
Owner Type:	Other
Operator Name:	Edwin Espel
Operator Type:	Other

PERRIS 1031 (Continued) **1025876462**

Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20191004
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name: FERGUSON ENTERPRISES INC	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4100 N WEBSTER AVE
Owner/Operator City,State,Zip:	PERRIS, CA 92571
Owner/Operator Telephone:	757-874-7795
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: EDWIN ESPEL	

PERRIS 1031 (Continued) **1025876462**

Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4100 N WEBSTER AVE
Owner/Operator City,State,Zip:	PERRIS, CA 92571
Owner/Operator Telephone:	951-436-4374
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20191003
Handler Name: PERRIS 1031	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	444190
NAICS Description:	OTHER BUILDING MATERIAL DEALERS

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

7
NNW
1/8-1/4
0.162 mi.
855 ft.

KENNY RAY FARMS **HIST UST** **U001575330**
23381 PERRY **N/A**
PERRIS, CA 92370

Relative:
Lower

Actual:
1492 ft.

HIST UST:

Name:	KENNY RAY FARMS
Address:	23381 PERRY
City,State,Zip:	PERRIS, CA 92370
File Number:	0001f78c
URL:	https://documents.geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f78c.pdf
Region:	STATE
Facility ID:	00000042833
Facility Type:	Other
Other Type:	ONION FARM
Contact Name:	EXXON
Telephone:	7146577071
Owner Name:	KENNETH L RAY
Owner Address:	23381 PERRY
Owner City,St,Zip:	PERRIS, CA 92370

KENNY RAY FARMS (Continued) **U001575330**

Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Sensor Instrument

Click here for Geo Tracker PDF:

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8 WNW 1/8-1/4 0.227 mi. 1199 ft. **DRT GRADING INC** **18810 HARVILL AVE** **PERRIS, CA 92570** **RCRA NonGen / NLR** **1024748768** **CAC002968551**

Relative: Higher

Actual: 1520 ft.

RCRA Listings:

Date Form Received by Agency:	20180627
Handler Name:	Drt Grading Inc
Handler Address:	18810 HARVILL AVE
Handler City,State,Zip:	PERRIS, CA 92570
EPA ID:	CAC002968551
Contact Name:	BEAU RASH
Contact Address:	13089 PEYTON DRIVE C-150
Contact City,State,Zip:	CHINO HILLS, CA 91709
Contact Telephone:	909-721-1384
Contact Fax:	Not reported
Contact Email:	DRTBIZ@MSN.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	13089 PEYTON DRIVE C-150
Mailing City,State,Zip:	CHINO HILLS, CA 91709
Owner Name:	Ron Rash
Owner Type:	Other
Operator Name:	Beau Rash
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes

DRT GRADING INC (Continued) **1024748768**

Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20180831
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name: BEAU RASH	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	13089 PEYTON DRIVE C-150
Owner/Operator City,State,Zip:	CHINO HILLS, CA 91709
Owner/Operator Telephone:	909-721-1384
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: RON RASH	
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	13089 PEYTON DRIVE C-150
Owner/Operator City,State,Zip:	CHINO HILLS, CA 91709
Owner/Operator Telephone:	909-591-4216
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

DRT GRADING INC (Continued) **1024748768**

Historic Generators:

Receive Date:	20180627
Handler Name:	DRT GRADING INC
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	333120
NAICS Description:	CONSTRUCTION MACHINERY MANUFACTURING

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

9
South
1/4-1/2
0.485 mi.
2562 ft.

VAL VERDE CONTINUATION HIGH SCHOOL
NEVADA AVENUE/MORGAN STREET
PERRIS, CA 92571

ENVIROSTOR SCH **S105628757 N/A**

Relative: Higher

Actual: 1499 ft.

ENVIROSTOR:

Name:	VAL VERDE CONTINUATION HIGH SCHOOL
Address:	NEVADA AVENUE/MORGAN STREET
City,State,Zip:	PERRIS, CA 92571-3103
Facility ID:	33010050
Status:	No Further Action
Status Date:	05/23/2002
Site Code:	404250
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	18
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	DTSC
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	60
Senate:	31
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.8217
Longitude:	-117.204

VAL VERDE CONTINUATION HIGH SCHOOL (Continued) **S105628757**

APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic Aldrin Chlordane DDD DDE DDT Dieldrin Endosulfan Endrin HCH (alpha HCH (beta HCH (gamma) Lindane HCH-technical Heptachlor Heptachlor epoxide Mirex Toxaphene
Confirmed COC: 30001-NO 30004-NO 30006-NO 30007-NO 30008-NO 30010-NO 30309-NO 30313-NO 30314-NO 30315-NO 30316-NO 30207-NO 30400-NO 30261-NO 30043-NO 30308-NO 30023-NO
Potential Description: SOIL
Alias Name: MORGAN STREET HIGH SCHOOL SITE
Alias Type: Alternate Name
Alias Name: VAL VERDE CONTINUATION HIGH SCHOOL
Alias Type: Alternate Name
Alias Name: VAL VERDE UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: VAL VERDE USD-CONTINUATION SCHOOL
Alias Type: Alternate Name
Alias Name: VAL VERDE USD-PRPSD VAL VERDE CONT. HS
Alias Type: Alternate Name
Alias Name: 404242
Alias Type: Project Code (Site Code)
Alias Name: 404250
Alias Type: Project Code (Site Code)
Alias Name: 33010050
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Workplan
Completed Date: 12/05/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 07/13/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/18/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/23/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported

VAL VERDE CONTINUATION HIGH SCHOOL (Continued) **S105628757**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: VAL VERDE CONTINUATION HIGH SCHOOL
Address: NEVADA AVENUE/MORGAN STREET
City,State,Zip: PERRIS, CA 92571-3103
Facility ID: 33010050
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 18
National Priorities List: NO
Cleanup Oversight Agencies: DTSC
Lead Agency: DTSC
Lead Agency Description: * DTSC
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404250
Assembly: 60
Senate: 31
Special Program Status: Not reported
Status: No Further Action
Status Date: 05/23/2002
Restricted Use: NO
Funding: School District
Latitude: 33.8217
Longitude: -117.204
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Arsenic, Aldrin, Chlordane, DDD, DDE, DDT, Dieldrin, Endosulfan, Endrin, HCH (alpha, HCH (beta, HCH (gamma) Lindane, HCH-technical, Heptachlor, Heptachlor epoxide, Mirex, Toxaphene
Confirmed COC: 30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30309-NO, 30313-NO, 30314-NO, 30315-NO, 30316-NO, 30207-NO, 30400-NO, 30261-NO, 30043-NO, 30308-NO, 30023-NO
Potential Description: SOIL
Alias Name: MORGAN STREET HIGH SCHOOL SITE
Alias Type: Alternate Name
Alias Name: VAL VERDE CONTINUATION HIGH SCHOOL
Alias Type: Alternate Name
Alias Name: VAL VERDE UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: VAL VERDE USD-CONTINUATION SCHOOL
Alias Type: Alternate Name
Alias Name: VAL VERDE USD-PRPSD VAL VERDE CONT. HS
Alias Type: Alternate Name
Alias Name: 404242
Alias Type: Project Code (Site Code)
Alias Name: 404250
Alias Type: Project Code (Site Code)
Alias Name: 33010050
Alias Type: Envirostor ID Number

Completed Info:

VAL VERDE CONTINUATION HIGH SCHOOL (Continued) **S105628757**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Workplan
Completed Date: 12/05/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 07/13/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/18/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/23/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
PERRIS	S107540243		PATTERSON AVE AND MARKMAN ST,	92570	CDL
RIVERSIDE COUNTY	S107537442		@ RAMONA EXPRESSWAY & RIDER ST		CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2023
Date Data Arrived at EDR: 03/28/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 06/23/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/08/2023
Date Data Arrived at EDR: 02/09/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 82

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/20/2023
Date Data Arrived at EDR: 02/21/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/20/2023
Date Data Arrived at EDR: 02/21/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/20/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 04/26/2023
Number of Days to Update: 78

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/30/2023
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/09/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 03/08/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 82

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 02/23/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/26/2023
Number of Days to Update: 80

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 78

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/20/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/06/2023
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/14/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 04/06/2023
Date Data Arrived at EDR: 04/13/2023
Date Made Active in Reports: 04/19/2023
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/08/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/16/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/13/2023
Number of Days to Update: 83

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/31/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/27/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 48

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/24/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2022
Date Made Active in Reports: 02/09/2023
Number of Days to Update: 71

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/11/2023
Number of Days to Update: 84

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 48

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 04/28/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/06/2023
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/23/2023
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 03/23/2023
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing
Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/19/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/15/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/30/2023
Number of Days to Update: 23

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/08/2023
Date Data Arrived at EDR: 05/16/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 55

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/10/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/13/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/01/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/04/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/16/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 02/16/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 75

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/19/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 83

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022
Date Data Arrived at EDR: 05/04/2022
Date Made Active in Reports: 05/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 06/12/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 66

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/07/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/15/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/12/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 04/14/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/04/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2023
Date Data Arrived at EDR: 04/20/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 81

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/24/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/22/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/24/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 66

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/07/2022
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 82

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing
Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/17/2023
Date Data Arrived at EDR: 03/17/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 74

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 24

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/25/2023
Date Data Arrived at EDR: 03/31/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 10/20/2022
Date Made Active in Reports: 01/10/2023
Number of Days to Update: 82

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/15/2023
Date Data Arrived at EDR: 05/17/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 54

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 06/07/2023
Date Data Arrived at EDR: 06/08/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/07/2023
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/07/2023
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ECHO FIRE TRAINING: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS PART 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 04/27/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/05/2023
Number of Days to Update: 59

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/23/2023
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/20/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/06/2023
Number of Days to Update: 77

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/14/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 12/07/2021
Date Data Arrived at EDR: 05/09/2022
Date Made Active in Reports: 05/17/2022
Number of Days to Update: 8

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/17/2023
Date Data Arrived at EDR: 02/17/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/23/2023
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 05/15/2023
Number of Days to Update: 80

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN NO SONOMA CO DIST: Norther Sonoma County County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Northern Sonoma County Air Pollution Control District.,

Date of Government Version: 04/17/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475

Source: Santa Barbara County Air Pollution Control District
Telephone: 707-433-5911
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN PLACER CO DIST: Placer County Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Placer County Air Quality Management District.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1473

Source: Placer County Air Quality Management District
Telephone: 530-745-2335
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN EAST KERN DIST: Eastern Kern Air Pollution Control District District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Eastern Kern Air Pollution Control District.

Date of Government Version: 01/12/2023
Date Data Arrived at EDR: 04/26/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 79

Source: Eastern Kern Air Pollution Control District
Telephone: 661-862-9684
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN BAY AREA DIST: Bay Area Air Quality Management District Drycleaner Facility Listing
Bay Area Air Quality Management District Drycleaner Facility Listing.

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1432

Source: Bay Area Air Quality Management District
Telephone: 415-516-1916
Last EDR Contact: 07/13/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN BUTTE CO DIST: Butte County Air Quality Management DistrictDrycleaner Facility Listing
Butte County Air Quality Management DistrictDrycleaner Facility Listing.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1469

Source: Butte County Air Quality Management District
Telephone: 530-332-9400
Last EDR Contact: 07/13/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN CALAVERAS CO DIST: Calaveras County Environmental Management Agency Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Calaveras County Environmental Management Agency.

Date of Government Version: 06/17/2019
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1412

Source: Calaveras County Environmental Management Agency
Telephone: 209-754-6399
Last EDR Contact: 04/24/2023
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

DRYCLEAN IMPERIAL CO DIST: Imperial County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Imperial County Air Pollution Control District

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/26/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 79

Source: Imperial County Air Pollution Control District
Telephone: 442-265-1800
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN GLENN CO DIST: Glenn County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Glenn County Air Pollution Control District.

Date of Government Version: 04/17/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475

Source: Glenn County Air Pollution Control District
Telephone: 530-934-6500
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN MENDO CO DIST: Mendocino County Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Mendocino County Air Quality Management District.

Date of Government Version: 04/27/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: Mendocino County Air Quality Management District
Telephone: 707-463-4354
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN GRANT: Grant Recipients List
Assembly Bill 998 (AB 998) established the Non-Toxic Dry Cleaning Incentive Program to provide financial assistance to the dry cleaning industry to switch from systems using perchloroethylene (Perc), an identified toxic air contaminant and potential human carcinogen, to non-toxic and non-smog forming alternatives.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 816

Source: California Air Resources Board
Telephone: 916-323-0006
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Varies

DRYCLEAN MOJAVE DESERT DIST: Mojave Desert Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Mojave Desert Air Quality Management District.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 78

Source: Mojave Desert Air Quality Management District
Telephone: 760-245-1661
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN LAKE CO DIST: Lake County Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Lake County Air Quality Management District,

Date of Government Version: 04/29/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1455

Source: Lake County Air Quality Management District
Telephone: 707-263-7000
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN MONTEREY BAY DIST: Monterey Bay Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Monterey Bay Air Quality Management District.

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/26/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 79

Source: Monterey Bay Air Quality Management District
Telephone: 831-647-9411
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SHASTA CO DIST: Shasta County Air Quality Management District District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Shasta County Air Quality Management District.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 78

Source: Shasta County Air Quality Management District
Telephone: 530-225-5674
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN NO COAST UNIFIED DIST: North Coast Unified Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the North Coast Unified Air Quality Management District.

Date of Government Version: 11/30/2016
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1473

Source: North Coast Unified Air Quality Management District
Telephone: 707-443-3093
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN YOLO-SOLANO DIST: Yolo-Solano Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Yolo-Solano Air Quality Management District.

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 78

Source: Yolo-Solano Air Quality Management District
Telephone: 530-757-3650
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN NO SIERRA DIST: Northern Sierra Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Northern Sierra Air Quality Management District,

Date of Government Version: 05/07/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1455

Source: Northern Sierra Air Quality Management District
Telephone: 530-274-9350
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SAN DIEGO CO DIST: San Diego County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the San Diego County Air Pollution Control District.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1461

Source: San Diego County Air Pollution Control District
Telephone: 858-586-2616
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SACRAMENTO METO DIST: Sacramento Metropolitan Air Quality Management DistrictDrycleaner Facility Listing
A listing of drycleaner facility locations, for the Sacramento Metropolitan Air Quality Management District.

Date of Government Version: 04/25/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/19/2023
Number of Days to Update: 82

Source: Sacramento Metropolitan Air Quality Management District
Telephone: 916-874-3958
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SANTA BARB CO DIST: Santa Barbara County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Santa Barbara County Air Pollution Control District.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475

Source: Santa Barbara County Air Pollution Control District
Telephone: 805-961-8867
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SAN JOAQ VAL DIST: San Joaquin Valley Air Pollution Control District District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the San Joaquin Valley Air Pollution Control District.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/03/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1459

Source: San Joaquin Valley Air Pollution Control District
Telephone: 559-230-6001
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN SAN LUIS OB CO DIST: San Luis Obispo County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the San Luis Obispo County Air Pollution Control District.

Date of Government Version: 04/23/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1467

Source: San Luis Obispo County Air Pollution Control District
Telephone: 805-781-5756
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN TEHAMA CO DIST: Tehama County Air Pollution Control District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Tehama County Air Pollution Control District.

Date of Government Version: 04/24/2019
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1468

Source: Tehama County Air Pollution Control District
Telephone: 530-527-3717
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN AMADOR: Amador Air District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Amador Air Quality Management District

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 77

Source: Amador Air Quality Management District
Telephone: 209-257-0112
Last EDR Contact: 04/24/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

DRYCLEAN FEATHER RIVER DIST: Feather River Air Quality Management District Drycleaner Facility Listing
A listing of drycleaner facility locations, for the Feather River Air Quality Management District.

Date of Government Version: 03/08/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 06/05/2023
Number of Days to Update: 88

Source: Feather River Air Quality Management District
Telephone: 530-634-7659
Last EDR Contact: 06/08/2023
Next Scheduled EDR Contact: 06/12/2023
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Annually

DRYCLEAN VENTURA CO DIST: Drycleaner Facility Listing

A listing of drycleaner facility locations, for the Ventura County Air Pollution Control District.

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/01/2023
Number of Days to Update: 1475

Source: Ventura County Air Pollution Control District
Telephone: 805-645-1421
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/30/2022
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/09/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/06/2023
Number of Days to Update: 79

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/11/2023
Date Data Arrived at EDR: 01/17/2023
Date Made Active in Reports: 04/04/2023
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 06/28/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/15/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 83

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/13/2023
Date Data Arrived at EDR: 02/14/2023
Date Made Active in Reports: 05/08/2023
Number of Days to Update: 83

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/13/2023
Date Data Arrived at EDR: 02/14/2023
Date Made Active in Reports: 05/08/2023
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/27/2023
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 07/05/2022
Date Made Active in Reports: 09/19/2022
Number of Days to Update: 76

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/07/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Annually

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/23/2023
Number of Days to Update: 77

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/09/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 04/28/2023
Number of Days to Update: 80

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/22/2023
Number of Days to Update: 83

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/09/2023
Date Data Arrived at EDR: 03/10/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 75

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Annually

SANTA CRUZ CO SITE MITI: Site Mitigation Listing

Sites may become contaminated with toxic chemicals through illegal dumping or disposal, from leaking underground storage tanks, or through industrial or commercial activities.The goal of the site mitigation program is to protect the public health and the environment while facilitating completion of contaminated site clean-up projects in a timely manner.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 20

Source: Santa Cruz Environmental Health Services
Telephone: 831-454-2761
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/07/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 05/24/2023
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System
The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data
The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/17/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/06/2023
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)
Non-Case Information sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)
Other Oil & Gas Projects sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/07/2023
Date Made Active in Reports: 03/31/2023
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/05/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: No Update Planned

PFAS TRIS: List of PFAS Added to the TRI
Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 06/07/2023
Date Data Arrived at EDR: 06/08/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/13/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 03/29/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 75

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 04/27/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 07/13/2023
Number of Days to Update: 77

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/17/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/06/2023
Number of Days to Update: 77

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/20/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 81

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 02/13/2023
Date Data Arrived at EDR: 02/14/2023
Date Made Active in Reports: 05/08/2023
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/08/2022
Date Data Arrived at EDR: 08/09/2022
Date Made Active in Reports: 09/01/2022
Number of Days to Update: 23

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/12/2023
Date Data Arrived at EDR: 04/14/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 75

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 01/30/2023
Date Data Arrived at EDR: 02/01/2023
Date Made Active in Reports: 04/19/2023
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/04/2023
Date Data Arrived at EDR: 05/11/2023
Date Made Active in Reports: 06/14/2023
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 04/27/2023
Date Made Active in Reports: 05/31/2023
Number of Days to Update: 34

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/06/2023
Date Made Active in Reports: 06/26/2023
Number of Days to Update: 81

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/10/2023
Date Data Arrived at EDR: 04/11/2023
Date Made Active in Reports: 06/26/2023
Number of Days to Update: 76

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/10/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 01/12/2023
Date Made Active in Reports: 03/29/2023
Number of Days to Update: 76

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/14/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/12/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 82

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/13/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 11/01/2022
Date Data Arrived at EDR: 12/14/2022
Date Made Active in Reports: 03/07/2023
Number of Days to Update: 83

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 11/01/2022
Date Data Arrived at EDR: 12/14/2022
Date Made Active in Reports: 03/07/2023
Number of Days to Update: 83

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/02/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 07/07/2023
Number of Days to Update: 80

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/18/2023
Next Scheduled EDR Contact: 07/31/2023
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/12/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 42

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/11/2022
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/23/2023
Date Data Arrived at EDR: 01/25/2023
Date Made Active in Reports: 04/10/2023
Number of Days to Update: 75

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/09/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 89

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/09/2023
Date Made Active in Reports: 05/04/2023
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 04/01/2023
Date Data Arrived at EDR: 05/18/2023
Date Made Active in Reports: 06/14/2023
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 08/26/2022
Date Data Arrived at EDR: 08/29/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 78

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/08/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/10/2023
Date Data Arrived at EDR: 04/12/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/10/2023
Date Data Arrived at EDR: 04/12/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 62

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2022
Date Data Arrived at EDR: 12/21/2022
Date Made Active in Reports: 03/16/2023
Number of Days to Update: 85

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/07/2022
Date Data Arrived at EDR: 12/09/2022
Date Made Active in Reports: 03/01/2023
Number of Days to Update: 82

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2023
Date Data Arrived at EDR: 02/09/2023
Date Made Active in Reports: 05/04/2023
Number of Days to Update: 84

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/15/2023
Date Data Arrived at EDR: 02/15/2023
Date Made Active in Reports: 05/09/2023
Number of Days to Update: 83

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 02/27/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 78

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/04/2023
Date Data Arrived at EDR: 04/05/2023
Date Made Active in Reports: 06/27/2023
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 04/28/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 77

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 04/28/2023
Date Data Arrived at EDR: 04/28/2023
Date Made Active in Reports: 05/03/2023
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/26/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

SAN FRANCISO COUNTY:

SAN FRANCISCO MAHER: Maher Ordinance Property Listing
a listing of properties that fall within a Maher Ordinance, for all of San Francisco

Date of Government Version: 04/11/2023
Date Data Arrived at EDR: 04/13/2023
Date Made Active in Reports: 07/11/2023
Number of Days to Update: 89

Source: San Francisco Planning
Telephone: 628-652-7483
Last EDR Contact: 07/18/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/09/2023
Date Data Arrived at EDR: 02/10/2023
Date Made Active in Reports: 05/05/2023
Number of Days to Update: 84

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/08/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 05/31/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/10/2023
Date Data Arrived at EDR: 02/10/2023
Date Made Active in Reports: 05/05/2023
Number of Days to Update: 84

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/10/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 08/03/2022
Date Data Arrived at EDR: 08/25/2022
Date Made Active in Reports: 11/14/2022
Number of Days to Update: 81

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 11/17/2022
Date Data Arrived at EDR: 11/21/2022
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 81

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/12/2023
Date Data Arrived at EDR: 04/13/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 10/07/2022
Date Data Arrived at EDR: 10/07/2022
Date Made Active in Reports: 12/21/2022
Number of Days to Update: 75

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 05/10/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/27/2023
Date Data Arrived at EDR: 04/25/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 80

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/27/2023
Date Data Arrived at EDR: 04/21/2023
Date Made Active in Reports: 07/07/2023
Number of Days to Update: 77

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2023
Date Data Arrived at EDR: 06/02/2023
Date Made Active in Reports: 06/14/2023
Number of Days to Update: 12

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/02/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/18/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 56

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/21/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/26/2023
Date Data Arrived at EDR: 01/27/2023
Date Made Active in Reports: 04/19/2023
Number of Days to Update: 82

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/19/2023
Next Scheduled EDR Contact: 11/06/2023
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/16/2022
Date Data Arrived at EDR: 11/16/2022
Date Made Active in Reports: 02/06/2023
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/27/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/10/2022
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/01/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

VACANT PROPERTY
RAMONA EXPRESSWAY
PERRIS, CA 92571

TARGET PROPERTY COORDINATES

Latitude (North):	33.845218 - 33˚ 50’ 42.78’’
Longitude (West):	117.248178 - 117˚ 14’ 53.44’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	477039.3
UTM Y (Meters):	3744828.0
Elevation:	1493 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12015907 PERRIS, CA
Version Date:	2018
Southwest Map:	12015925 STEELE PEAK, CA
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

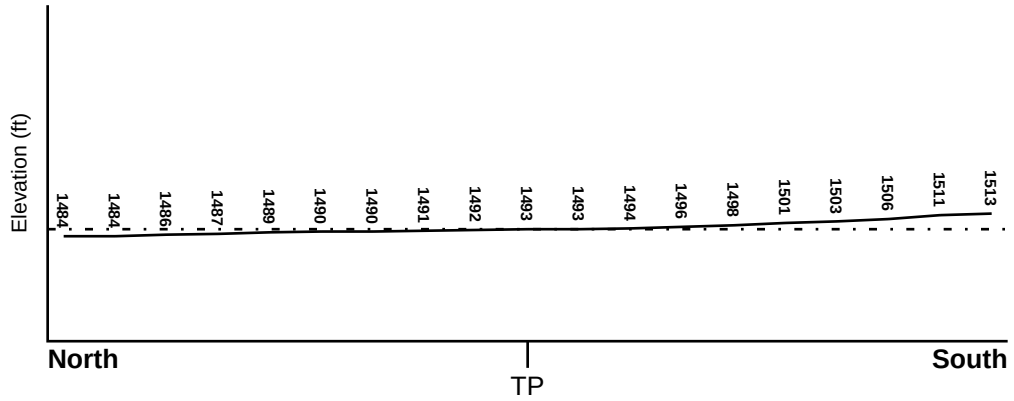
TOPOGRAPHIC INFORMATION

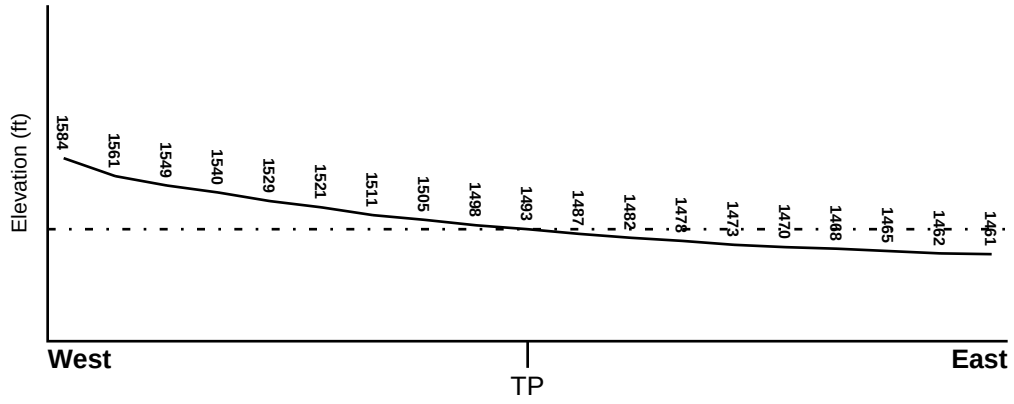
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 1493 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C1430H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C1410G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

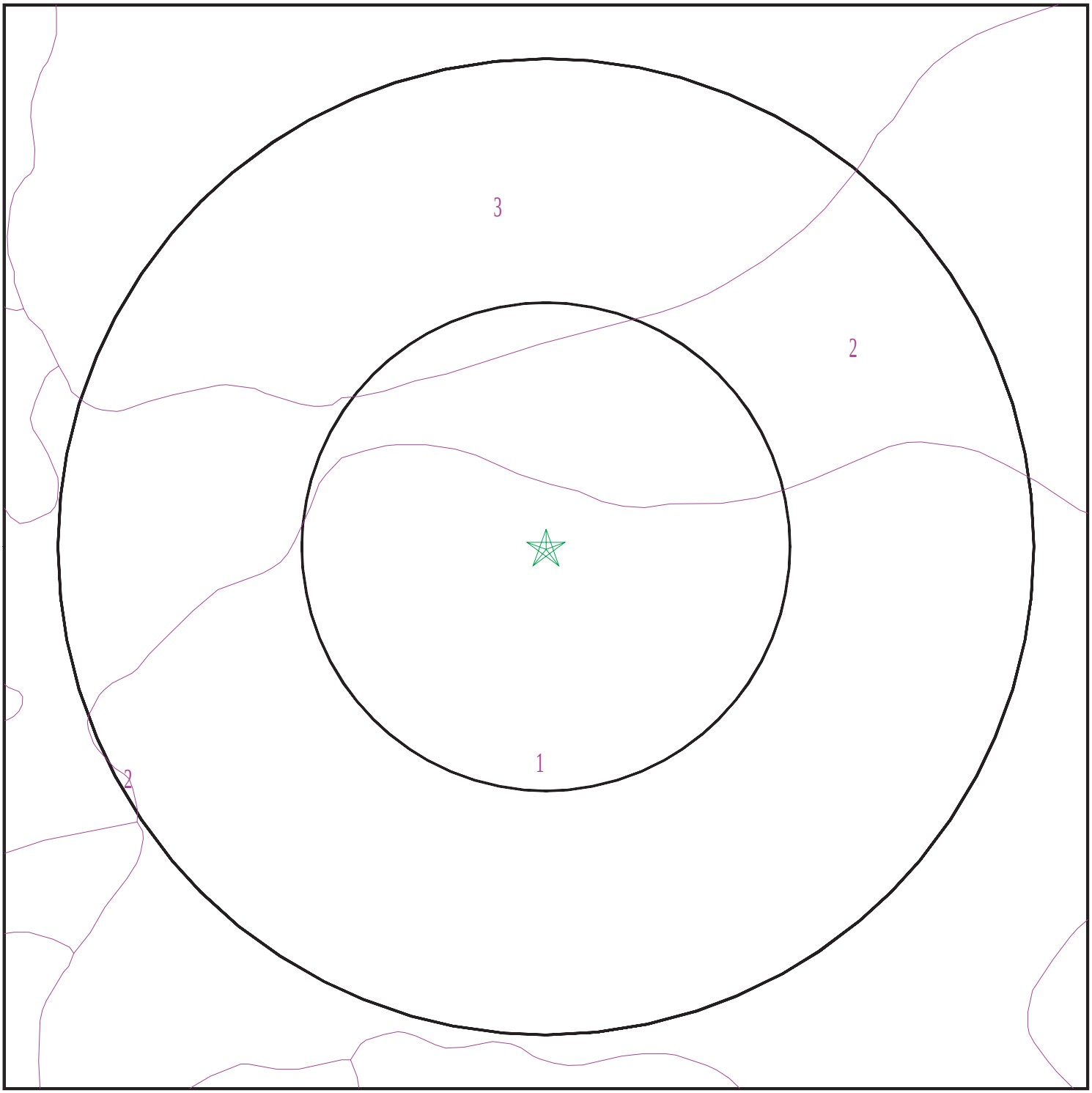
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7396039.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Vacant Property	CLIENT:	Earth Strata Geotechnical Services, Inc
ADDRESS:	Ramona Expressway Perris CA 92571	CONTACT:	Tim Doyle
		INQUIRY #:	7396039.2s
LAT/LONG:	33.845218 / 117.248178	DATE:	July 20, 2023 8:33 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
2	14 inches	22 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	22 inches	68 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
3	42 inches	59 inches	loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: PACHAPPA

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
2	20 inches	62 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A4	USGS40000138614	1/2 - 1 Mile North
B7	USGS40000138620	1/2 - 1 Mile North
C8	USGS40000138560	1/2 - 1 Mile East
D11	USGS40000138576	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

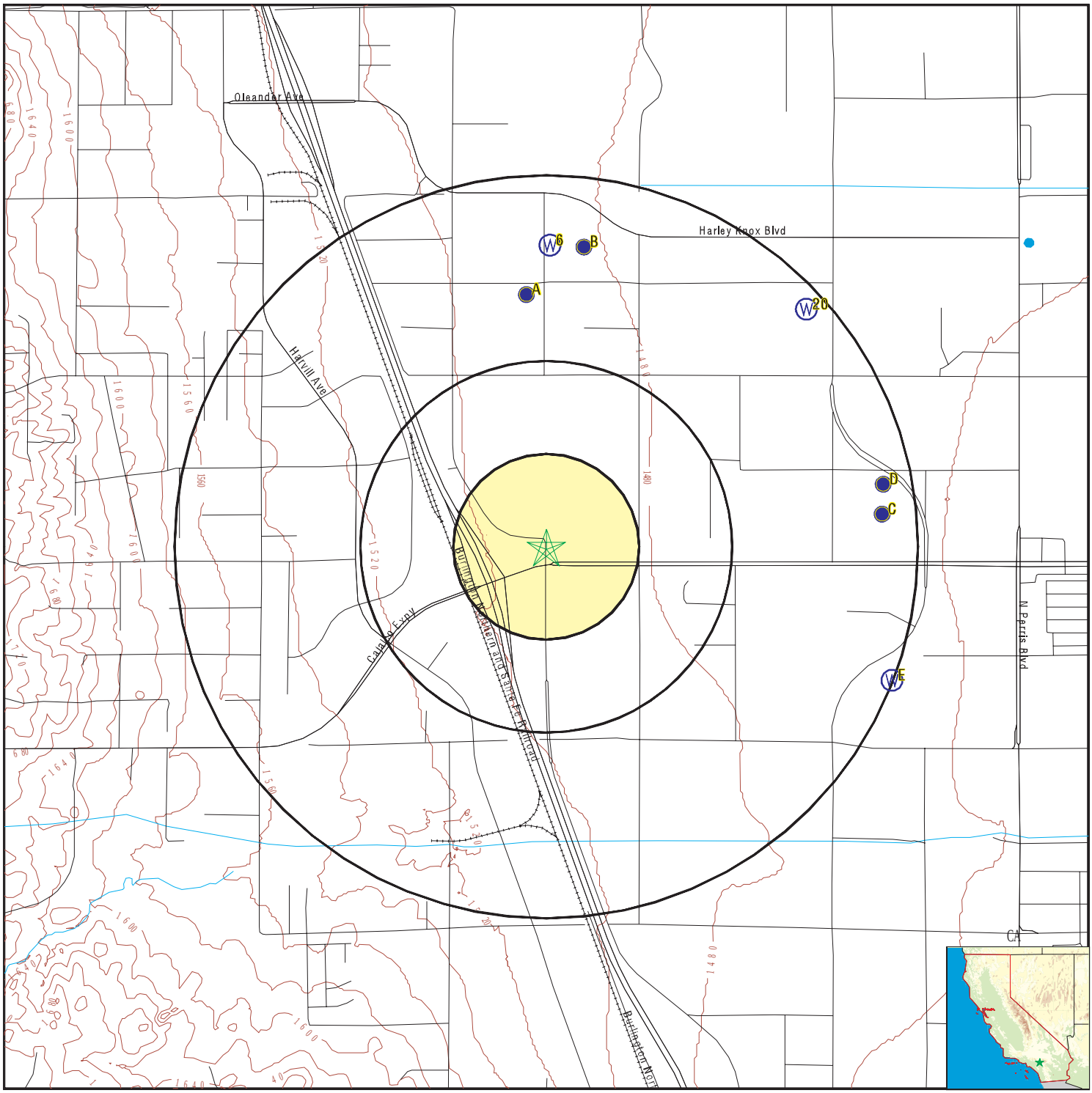
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADWR0000037413	1/2 - 1 Mile North
A2	CAUSGSN00002987	1/2 - 1 Mile North
A3	CADWR9000005902	1/2 - 1 Mile North
B5	CAUSGSN00003468	1/2 - 1 Mile North
6	CADWR9000005915	1/2 - 1 Mile North
C9	CAUSGSN00003056	1/2 - 1 Mile East
C10	4815	1/2 - 1 Mile East
D12	CAUSGSN00019061	1/2 - 1 Mile ENE
D13	CAUSGS000001379	1/2 - 1 Mile ENE
D14	CALLNL000000519	1/2 - 1 Mile ENE
C15	CADWR9000005843	1/2 - 1 Mile East
D16	CADWR0000017306	1/2 - 1 Mile East
D17	CADWR0000011667	1/2 - 1 Mile East
D18	CADWR0000001894	1/2 - 1 Mile East
C19	CADDW0000007579	1/2 - 1 Mile East
20	CADWR0000029072	1/2 - 1 Mile NE
E21	CADWR0000038083	1/2 - 1 Mile ESE
E22	CADWR0000033438	1/2 - 1 Mile ESE

PHYSICAL SETTING SOURCE MAP - 7396039.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

SITE NAME:	Vacant Property	CLIENT:	Earth Strata Geotechnical Services, Inc
ADDRESS:	Ramona Expressway Perris CA 92571	CONTACT:	Tim Doyle
		INQUIRY #:	7396039.2s
LAT/LONG:	33.845218 / 117.248178	DATE:	July 20, 2023 8:33 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000037413**

Well ID:	04S04W01G001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S04W01G001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S04W01G001S&store_num=		
GeoTracker Data:	Not Reported		

A2 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CAUSGSN00002987**

Well ID:	USGS-335119117145401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335119117145401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335119117145401&store_num=		
GeoTracker Data:	Not Reported		

A3 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR9000005902**

State Well #:	Not Reported	Station ID:	48247
Well Name:	EMWD12474	Basin Name:	San Jacinto
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

A4 **North** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000138614**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S004W01G001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
B5 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CAUSGSN00003468**

Well ID:	USGS-335125117144401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335125117144401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335125117144401&store_num=		
GeoTracker Data:	Not Reported		

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6 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR9000005915**

State Well #:	Not Reported	Station ID:	48246
Well Name:	EMWD12471	Basin Name:	San Jacinto
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

B7 **North** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000138620**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S004W01A001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

C8 **East** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000138560**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S003W06Q001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported

Well Hole Depth Units: Not Reported

C9
East
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00003056**

Well ID:	USGS-335046117135501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335046117135501	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335046117135501&store_num=		
GeoTracker Data:	Not Reported		

C10
East
1/2 - 1 Mile
Lower

CA WELLS **4815**

Seq:	4815	Prim sta c:	04S/03W-06Q03 S
Frds no:	3310009010	County:	33
District:	14	User id:	WAT
System no:	3310009	Water type:	G
Source nam:	WELL 1341 PERRY - ABANDONED	Station ty:	WELL/AMBNT
Latitude:	335049.0	Longitude:	1171355.0
Precision:	2	Status:	AB
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3310009	System nam:	Eastern Municipal Wd
Hqname:	EASTERN MUNICIPAL WATER DIST	Address:	P.O. Box 8300
City:	San Jacinto	State:	CA
Zip:	92381	Zip ext:	1300
Pop serv:	253705	Connection:	84839
Area serve:	HEMET-SAN JACINTO-SUN CITY		

D11
ENE
1/2 - 1 Mile
Lower

FED USGS **USGS40000138576**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S003W06Q004S	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Cenozoic Erathem	Aquifer Type:	Unconfined single aquifer
Construction Date:	19940115	Well Depth:	760
Well Depth Units:	ft	Well Hole Depth:	905
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements: 1 Level reading date: 2001-03-12

Feet below surface:	109.8	Feet to sea level:	Not Reported
Note:	Not Reported		

D12
ENE
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00019061**

Well ID:	USGS-335053117135801	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335053117135801	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335053117135801&store_num=		
GeoTracker Data:	Not Reported		

D13
ENE
1/2 - 1 Mile
Lower

CA WELLS **CAUSGS000001379**

D14
ENE
1/2 - 1 Mile
Lower

CA WELLS **CALLNL000000519**

Well ID:	100819	Well Type:	MUNICIPAL
Source:	Lawrence Livermore National Laboratory		
Other Name:	04S/03W-06Q04 M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	Not Reported		
GeoTracker Data:	Not Reported		

Chemical:	Helium-3/Helium-4	Results:	.000000361095
Units:	atom ratio	Date:	09/10/2001
Chemical:	Helium-4	Results:	.00000312922
Units:	cm3STP/g	Date:	09/10/2001
Chemical:	Argon	Results:	.000517371
Units:	cm3STP/g	Date:	09/10/2001
Chemical:	Neon	Results:	.000000954346
Units:	cm3STP/g	Date:	09/10/2001

C15
East
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000005843**

State Well #:	Not Reported	Station ID:	48225
Well Name:	EMWD11044	Basin Name:	San Jacinto
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	807	Well Completion Rpt #:	Not Reported

Map ID Direction Distance Elevation	Database	EDR ID Number
D16 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000017306**

Well ID:	04S03W06Q002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06Q002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06Q002S&store_num=		
GeoTracker Data:	Not Reported		

D17 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000011667**

Well ID:	04S03W06Q001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06Q001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06Q001S&store_num=		
GeoTracker Data:	Not Reported		

D18 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000001894**

Well ID:	04S03W06Q003S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06Q003S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06Q003S&store_num=		
GeoTracker Data:	Not Reported		

C19 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000007579**

Well ID:	3310009-010	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 45 - NEW MAXWELL - INACTIVE		
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3310009-010&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
20 **NE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000029072**

Well ID:	04S03W06F001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06F001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06F001S&store_num=		
GeoTracker Data:	Not Reported		

E21 **ESE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000038083**

Well ID:	04S03W07G001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W07G001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W07G001S&store_num=		
GeoTracker Data:	Not Reported		

E22 **ESE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000033438**

Well ID:	04S03W07G002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W07G002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W07G002S&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92571	1	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix E

Vacant Property
Ramona Expressway
Perris, CA 92571

Inquiry Number: 7396039.5
July 25, 2023

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2020	☑	☐	EDR Digital Archive
2017	☑	☐	Cole Information
2014	☑	☐	Cole Information
2010	☑	☐	Cole Information
2005	☑	☐	Cole Information
2000	☑	☐	Cole Information
1995	☑	☐	Cole Information
1992	☐	☐	Cole Information
1990	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1976	☑	☐	Haines Criss-Cross Directory
1971	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Ramona Expressway
Perris, CA 92571

Year	CD Image	Source	
RAMONA EXPY			
2020	pg A2	EDR Digital Archive	
2017	pg A4	Cole Information	
2014	pg A5	Cole Information	
2010	pg A6	Cole Information	
2005	pg A7	Cole Information	
2000	pg A8	Cole Information	
1995	pg A9	Cole Information	
1992	-	Cole Information	Target and Adjoining not listed in Source
1990	pg A10	Haines Criss-Cross Directory	
1985	pg A11	Haines Criss-Cross Directory	
1980	pg A12	Haines Criss-Cross Directory	
1976	pg A13	Haines Criss-Cross Directory	
1971	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RAMONA EXPY 2020

51	DEL TACO
64	MC DONALD'S
85	ANTOJITOS MEXICANOS
	BENJAMIN GUTIERREZ
	BENJAMIN HERNANDEZ
	BRYSON SAKIA
	CASTRO LOURDES R
	COVARRUBIAS CHRISTINA J
	EL CAJON CELLULARS INC
	EXPRESS REGISTRATION & INS SVC
	HERNANDEZ HERMELINDA
	IVETTE'S BEAUTIFUL FLOWERS
	JOHN STONE
	LAKE PERRIS MARKET & DELI
	LEI TORO LOCO GRILL
	LIZETT HERNANDEZ
	MILLER JILL MARIE
	PARRELL BOBBIE ROSE
	POINT CELLULARS CORP
	SCHNOOR AMANDA ROSE
	SUELDO & PERELECHE DENTAL INC
	SUPER SMILE DENTAL
	V SPA
115	CASA MEXICANA
	CEVICHE FACTORY LLC
	GOD'S HELPING HAND
118	JIFFY LUBE
120	AMANDA TRUDEL
	MARLIN LLC
	PAPA JOHN'S PIZZA
	SMOKE PLUS
	STARBUCKS
	TAQUERIA DON JOSE
	TINA SCOTT
145	ATM
	BRYAN MAYNARD
	COVION NAILS
	EL CAJON MUSICAL & CELLULAR
	FARMER BOYS
	NICHOLA ZACK
	PANADERIA LAS CONCHITAS
	PHILIP EIDE
	US JOES EXPRESS SMOG
165	ATM
	CERVANTES FIESTA MEXICAN FOOD
	LA MICHOACANA 100 NATURAL
	PATTY BEAUTY & BARBER SHOP
	PERRIS WATER PLUS
	RUBI CLEANERS
	SONNY NAILS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RAMONA EXPY 2020 (Cont'd)

185	EXPRESS GADGET REPAIR
	EXPRESSWAY TIRES
	SHANIK'S BOUTIQUE
375	AMBER LEGOWSKI
	CAMPER RESORTS OF AMERICA
	CHARLES PARKER
	CHRISTINE WILSON
	CURTIS YOUNG
	CYNTHIA STEPP
	DEBORAH JOHNSON
	DONNA CHAVEZ
	ELEANOR CUADERNO
	FRANKLIN TAX SVC 1
	GILBERT WILSON
	GOLDEN LADY SOUL FOOD
	HECTOR CHAVEZ
	HIVE MENTALITY LLC
	JAMES PAYNE
	LORRI GARMAN
	MARIA KESSELMAN
	MARIA OSEGUEDA
	MARK GARMAN
	MICHAEL WEIR
	NORENE VELOZ
	PAMELA WILSON
	PATRICIA TOVAR
	REYNALDO CUADERNO
	TERESA YOUNG
	VICKY PARKER
	WENDY PARRA
764	DIANA MUNTON
	NICK MINEO
780	SOLEDAD DE

Target Street	Cross Street	Source
✓	-	Cole Information

RAMONA EXPY 2017

18	JIFFY LUBE
64	MCDONALDS
85	ANTOJITOS MEXICANOS
	AUI HOME FINANCE
	EL CAJON CELLULARS
	JAMON INC ESCROW DIV
	LULU HAWAIIAN BBQ
	MIKEYS GOLD & SILVER
	PREFERRED REALTOR ASSOCIATES INC
	SUELDO & PERELECHE DENTAL INC
	TUS CASITAS INSURANCE
	V SPA
115	CASA MEXICANA RESTAURANT & BAR
	GODS HELPING HAND
118	JIFFY LUBE
120	GARAGE DOOR REPAIR
	GARAGEDOOR REPAIR PERRIS
	MARLIN LLC
	SMOKE PLUS
	STARBUCKS
	STARBUCKS COFFEE
	TAQUERIA DON JOSE
145	BOOST MOBILE
	FARMER BOYS
	MENDEZ MEAT MARKET
	PANADERIA LAS CONCHITAS
	US JOES EXPRESS SMOG
165	CERVANTES FIESTA MEXICAN FOOD
	JUGOS Y BIONICOS EL PARAISO
	PERRIS EXPRESS BARBERSHOP
	PERRIS WATER PLUS
	RAMONA CLEANERS
185	EXPRESS GADGET REPAIR
	EXPRESSWAY TIRES
748	HARRYS CAFE
764	ALABBASI
	MENDYK CHIROPRACTIC INC
	R HOA
	REALTY EXECUTIVES INTERNATIONAL
	SERVICE TO GOOD MINISTRIES
780	DISH NETWORK
	HAIR LOFT
	NUSA INC
	R HOA
	SUBWAY
	VALENTINOS PIZZA & SPORTS BAR
796	CHEVRON

Target Street	Cross Street	Source
✓	-	Cole Information

RAMONA EXPY 2014

18	JIFFY LUBE
85	ANTOJITOS MEXICANOS
	AUI HOME FINANCE
	EL CAJON CELLULARS
	ISLAND HEALTH CENTER
	LAKE PERRIS MARKET & DELI
	LULU HAWAIIAN BBQ
	REAL ESTATE FIRST
	SUELDO & PERELECHE DENTAL INC
	TUS CASITAS INSURANCE
	UHAUL
115	CASA MEXICANA
	GODS HELPING HAND
120	MARLIN LLC
	PAPA JOHNS PIZZA
	TAQUERIA DON JOSE
145	EL CAJON MUSICAL & CELLULAR
	MENDEZ MEAT MARKET
	MI OFICINA INCOME TAX
	PANADERIA LAS CONCHITAS
	US JOES EXPRESS SMOG
165	ALBERTOS MEXICAN FOOD
	BCMG PERFUMES
	CERVANTES FIESTA MEXICAN FOOD
	JUGOS Y BIONICOS EL PARAISO
	PERRIS WATER PLUS
	RAMONA CLEANERS
185	DIANAS NAILS
	EXPRESSWAY TIRES
375	CAMPER RESORTS OF AMERICA
	PETERS, SUSA A
	PONCE, ABRIEL
	TALIAFERRO, JAMES E
730	LOFT, HAIR
748	HARRYS CAFE
764	REALTY EXECUTIVES INTERNATIONL
780	NARA HOOKAH LOUNGE
	RAMONA SUBWAY 41227
	VALENTINOS PIZZA & BBQ
796	CHEVRON
	CHEVRON STATION EXTRA MILE PERRIS

Target Street	Cross Street	Source
✓	-	Cole Information

RAMONA EXPY 2010

18	JIFFY LUBE
64	MC DONALDS
85	ANTOJITOS MEXICANOS
	APOLLO PROPERTY MANAGEMENT
	AUI HOME FINANCE
	EMPIRE VALLEY REALTY
	LAKE PERRIS MARKET & DELI
	LULU BBQ
	NANCY PUEBLA RESTAURANT
	RANCHO DENTAL GROUP
	TEE BABYS SOUL FOOD
	THERAPY CENTER
	TUS CASITAS INSURANCE
	VERO POSTAL TERMINAL
	XTRI BUSINESS SVC INC
115	CASA MEXICANA RESTAURANT
120	CASA GRILL
	MARLIN LLC
	PAPA JOHNS PIZZA
	STARBUCKS
145	FARMER BOYS
	MENDEZ MEAT MARKET
	PANADERIA LAS CONCHITAS
	STOP N GO SMOG
165	DLAGO TAX SVC
	JUGOS Y BIONICOS EL PARAISO
	PERRIS EXPRESS BARBERSHOP
	PERRIS WATER PLUS
	RAMONA CLEANERS
375	CAMPER RESORTS OF AMERICA
	DAVIS, PAMELA S
730	LOFT, HAIR
	LOST HAIR
764	PREMIER LOAN SVC
780	L3 NAILS & SPA INC
	OLD CHICAGO
	RUMZ SMOKE SHOP
	SUBWAY
796	CHEVRON

Target Street	Cross Street	Source
✓	-	Cole Information

RAMONA EXPY 2005

85	ALLEN, ERNEST E
	EMPIRE VALLEY REALTY
	JAMON INC
	LAKE PERRIS MARKET & DELI
	VAL VERDE TEACHERS ASSOCIATION
115	SIZZLING STEER STEAK HO
145	BRADS CARTS AND PARTS
	NAILS AND SPA COM
	SMOG N RUN
165	DLAGO TAX SERVICE
	ITS SHOWTIME VIDEO
	KENYAS ICE CREAM
	MARTINEZ, ALICIA
	PERRIS EXPRESS BARBER SHOP
185	ACTION SURVEYS
	GET WET WATER CRAFT RENTALS
	LAKE PERRIS WEATHERCRAFT RENTALS
375	CAMPER RESORTS OF AMERICA
	O B BUEZO HOUSE KEEPING
	OB BUEZO HOUSE KEEPING
	WIELIN, RONALD A

Target Street	Cross Street	Source
✓	-	Cole Information

RAMONA EXPY 2000

165	DLAGO TAX SERVICE
185	ACTION SURVEYS
	GET WET WATER CRAFT RENTALS

Target Street	Cross Street	Source
✓	-	Cole Information

RAMONA EXPY 1995

85	CASTANEDA ASSOCIATES
	EL RANCHO GRANDE RESTAURANT
	GOLDENS VIDEO LAB INC
	LAKE PERRIS MARKET & DELI
	WESTERN UNION
115	E H HANSEN REAL ESTATE
145	FARMER BOYS RESTAURANT
185	ACTION SURVEYS
	COMMUNITY TRAINING PROGRAM
	HOME EDUCATION PROGRAM
375	CAMPERS RESORTS OF AMERICA
	DOUBLE K GENERAL STORE

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMONA EXPY 1990

RAMONA EXPSWY 92370
PERRIS

375	★CAMPER RSRTS AM ADM	657-7497	9
	★CAMPER RSRTS AM RES	657-7471	9
	★CAMPER RSRTS AM SLS	657-7457	9
	PRUITT Conniemar J	00	4
	STYRKER James F	00	+0
1209	CROSS Jas	654-1598	9
1283	PLATINGA Bill Jr	654-8225	9
1312	BOUNDY Jack L	00	4
1387	ABATTI Santina A	00	+0
	★HEMET VLY FEED	654-1161	9

★ 4 BUS 6 RES 2 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMONA EXPY 1985

★ 0 BUS 14 RES 7 NEW

RAMONA EXPSWY 92370
PERRIS

24687	RODRIGUEZ PORFIRIO	657-8629	+5
25485	CAMPER RESORTS	657-7497	2
	CAMPER RESORTS RES	657-7471	2
	CAMPER RESORTS SLS	657-7457	2
26900	DISTEFANO TONY	657-1410	2
27500	XXXX	00	

★ 3 BUS 3 RES 1 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMONA EXPY 1980

RAMONA EXPSWY 92370
PERRIS

24687	XXXX	00
24695	FULLER MICHAEL	657-7869 +0
25485	CANALE JOS	657-1545 +0
★	**LAKE PERRIS KOA**	**657-2233 9**
32300	RODRIGUEZ ISABEL	657-7089 +0
32920★	**G&A CONSTRUCTION**	**657-9911 +0**
33751★	**LAKEVIEW R V PARK**	**654-9691 +0**
34860	SYBRANDY SIMON	654-4052 +0
34880	HETTINGA ERIC	654-0640 +0
35750	LAUDA BERT	654-0046 +0
	MORTON JAMES E	654-9848 9
★	**RANCHO CASA LOMA**	**654-0046 +0**
NO #★	**PASTIME LAKE**	**654-4050 4**
NO #★	**RAINTREE**	**654-9943 +0**
★	6 BUS 8 RES	10 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMONA EXPY 1976

RAMONA EXPRSSWY 92370 PERRIS

```
24695 AUSTIN ERNEST          657-7869 5
26900*BALDI BROS CONSTR      657-2889+6
      *CAL ST PK PERRIS LK657-7321+6
      *CAL ST WATER RSRC     657-6726 4
      *CALIF ST WTR RSOURC657-5166
      *PAC PERRIS CONCESSN657-2005+6
      *PERRIS OVERLOOK       657-5416+6
32300  XXXX                  00
33751*CRAZYHORSE CAMPGRND654-9691 5
      *NUTRLT FNDTN REC PK654-9691 5
 NO  #*CAL ST WATER RSRC     657-6635 4
 NO  #*CAL ST WTR VISITOR 657-7281+6
 NO  #*CHADWICK&BUCHANAN     657-7911+6
 NO  #*METROPOLTN WTR DIST657-7912+6
 NO  #*PASTIME LAKE          654-4050 4
      *  13 BUS     2 RES     7 NEW
```

Register Login

Assessor - County Clerk - Recorder
Riverside County, CA

HOME PROPERTY SEARCH E-FORMS CONTACT US ACR HOME

BACK | VIEW TAX INFO | VIEW SIMILAR SALES | VALUE HISTORY | PROPERTY REPORT

General Information

Property Address	- No Situs -
Assessment No. (PIN)	314180023
APN (GeoCode)	314180023
Property Type	Vacant Commercial Land
TAG	008-051 PERRIS
Acreage	1.65
Doing Business As	
Business Use	

Legal Description
1.65 ACRES IN PAR 2 PM 242/030 PM 36582 SubdivisionName PM 36582 Acres 001.65 LotType Parcel Parcel 2 RecMapType Parcel Map MapPlatB 242 MapPlatP 030

Valuation data as of: **Monday, July 24, 2023**

Valuation data updated weekly.

Transfer History

Date	Document #	Sale Price
3/27/2017	2017-0120696	$0
3/22/2017	2017-0115443-S	$0
1/1/2017	COND00004325632	$0

Buildings

Buildings does not exist for this account.

Features does not exist for this account.

Land

Primary Use	Land Type	Acres	Eff. Frontage	Eff. Depth
Commercial	LandLine 01 / 314180023 / Commercial	1.65	0.00	0.00

Land Use Detail does not exist for this account.

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Privacy Statement CR1

Register Login

Assessor - County Clerk - Recorder
Riverside County, CA

HOME PROPERTY SEARCH E-FORMS CONTACT US ACR HOME

BACK | VIEW TAX INFO | VIEW SIMILAR SALES | VALUE HISTORY | PROPERTY REPORT

General Information

Property Address	- No Situs -
Assessment No. (PIN)	314170020
APN (GeoCode)	314170020
Property Type	Vacant Commercial Land
TAG	008-051 PERRIS
Acreage	9.04
Doing Business As	
Business Use	

Legal Description
9.04 ACRES IN PAR 2 PM 242/033 PM 36512 SubdivisionName PM 36512 Acres 009.04 LotType Parcel Parcel 2 RecMapType Parcel Map MapPlatB 242 MapPlatP 033

Valuation data as of: **Monday, July 24, 2023**

Valuation data updated weekly.

Transfer History

Date	Document #	Sale Price
1/1/2018	NAME00004325470	$0
3/22/2017	2017-0115444-S	$0
1/1/2017	COND00004325467	$0

Buildings

Buildings does not exist for this account.

Features does not exist for this account.

Land

Primary Use	Land Type	Acres	Eff. Frontage	Eff. Depth
Commercial	LandLine 01 / 314170020 / Commercial	9.04	0.00	0.00

Land Use Detail does not exist for this account.

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ENVIRONMENTAL SITE ASSESSMENT TRANSACTION SCREEN QUESTIONNAIRE

This document is an excerpt of Practice E1528-06: Standard Practice for Environmental Site Assessments: Transaction Screen Process, which is under the jurisdiction of ASTM Committee E50 on Environmental Assessment as is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions. This questionnaire represents only Sections 5 and 6 of Practice E 1528-06 and should not be construed as being the complete standard. It is necessary to refer to the full standard prior to using this questionnaire. COPYRIGHT@ 2006 ASTM INTERNATIONAL, West Conshohocken, PA. Prior edition copyrighted 2000. Stock # ADJE152806. For the complete standard, or to order additional copies of this questionnaire, contact ASTM Customer service at (610) 832-9585.

5. Introduction to Transaction Screen Questionnaire

5.1 *Process*--The *transaction screen process* consists of asking questions contained within the *transaction screen questionnaire* of *owners* and *occupants* of the *property*, observing site conditions at the property with direction provided by the *transaction screen questionnaire*, and, to the extent *reasonably ascertainable*, conducting limited research regarding certain government records and certain standard historical sources. The questions asked of *owners* are the same questions as those asked of *occupants*.

5.2 *Guide*--The *transaction screen questionnaire* is followed by a guide designed to assist the person completing the *transaction screen questionnaire*. The guide to the *transaction screen questionnaire* is set out in Sections 7-10 of this practice. The guide is divided into three sections: Guide for Owner/Occupant Inquiry, Guide to Site Visit, and Guide to Government Records/Historical Sources Inquiry.

5.2.1 To assist the *user*, its employee or agent, or the preparer in preparing a report, the guide repeats each of the questions set out in the *transaction screen questionnaire* in both the guide for *owner/occupant* inquiry and the guide to *site visit*. The questions regarding government records/historical sources inquiry are also repeated in the guide to that section.

5.2.2 The guide also describes the procedures to be followed to determine if reliance upon the information in a prior *transaction screen* is appropriate under this practice.

5.2.3 A *user*, his employee or agent, or *preparer* conducting the *transaction screen process* should not use the *transaction screen questionnaire* without reference to or without familiarity with the guide based on prior use of the guide.

5.3 The *user* may either conduct the *transaction screen process*, or delegate it to an employee or agent or may contract with a third party to prepare the questionnaire on behalf of the *user*. No matter who prepares the questionnaire, the *user* remains responsible for the decision to conduct limited environmental *due diligence* and the impact of that decision on risk management.

5.4 The *preparer* conducting the *transaction screen* process should use good faith efforts in determining answers to the questions set forth in the *transaction screen questionnaire*. The *user* should take time and care to check whatever records are in the *user's* possession and forward relevant information or specialized knowledge to the *preparer*.

5.5 *Knowledge*--All answers should be given to the best of the *owner's* or *occupant's* knowledge. The most knowledgeable person available should be chosen to answer the questions.

5.5.1 While the person conducting the *transaction screen* has an obligation to ask the questions in the *transaction screen questionnaire*, others may have no obligation to answer them.

5.5.2 The *transaction screen questionnaire* and the *transaction screen guide* sometimes include the phrase "to the best of your knowledge." This phrase does not impose a constructive knowledge standard. It is intended as an assurance to the person being questioned that he or she is not obligated to search out information he or she does not currently have in order to answer the particular question.

5.6 *Conclusions Regarding Afirmative* or *Unknown Answers*-Once a *transaction screen questionnaire* has been completed, it shall be presented to the user. Subject to 5.6 through 5.7, an affirmative, unknown, or no response is presumed to be a *potential environmental concern*. If any of the questions set forth in the *transaction screen questionnaire* are answered in the affirmative, the *preparer* must document the reason for the affirmative answer. If any of the questions are not answered or the answer is unknown, the *user* should document such nonresponse or answer of unknown and evaluate it in light of the other information obtained in the *transaction screen process*, including, in particular, the site visit and the government recordslhistorical sources inquiry. If the *user* decides no further inquiry is warranted after receiving no response, an answer of unknown, or an affirmative answer, the *user* must document the reasons for any such conclusion.

5.6.1 Upon obtaining an affirmative answer, an answer of unknown or no response, the *user* should first refer to the guide. The guide may provide sufficient explanation to allow a *use*r to conclude that no further inquiry is appropriate with respect to the particular question.

5.6.2 If the guide to a particular question does not, in itself, permit a user to conclude that no further inquiry is appropriate, then the user should consider other information obtained from the *transaction screen process* relating to this question. For example, while on the site performing a *site visit*, a person may find a storage tank on the *property* and therefore answer Question 10 of the *transaction screen questionnaire* in the affirmative. However, during or subsequent to the *owner/occupant* inquiry, the *owner* may establish that substances now or historically contained in the tank (for example, water) are not likely to cause contamination.

5.6.3 If either the guide to the question or other information obtained during the *transaction screen process* does not permit a *user* to conclude no further inquiry is appropriate with respect to such question, then the user must determine, in the exercise of the *user's* reasonable business judgment, based upon the totality of unresolved affirmative answers or answers of unknown received during the *transaction screen process*, whether further inquiry may be limited to those specific issues identified as of concern.

5.7 *Presumption*--A presumption exists that further inquiry is necessary if an affirmative answer is given to a question or because the answer was unknown or no response was given. In rebutting this presumption, the *user* should evaluate information obtained from each component of the *transaction screen* process and consider whether sufficient information has been obtained to conclude that no further inquiry is necessary. The *user* must determine, in the exercise of the *user's* reasonable business judgment, the scope of such further inquiry.

5.8 *Further Inquiry*--Upon completing the *transaction screen questionnaire*, if the *user* concludes that further inquiry or action is needed (for example, consult with an environmental consultant, contractor, governmental authority, or perform additional governmental and/or historical records review), the *user* should proceed with such inquiry. (Note that if the *user* determines to proceed with a Phase I Environment Site Assessment, the *user* may apply the current Practice E 1527 or alternatively the provisions of EPA's regulation "Standards and Practices for All Appropriate Inquiries," 40 C.F.R. Part 312.)

5.9 *Signature*--The user and the *preparer* of the *transaction screen questionnaire* must complete and sign the questionnaire as provided at the end of the questionnaire.

6. Transaction Screen Questionnaire

6.1 *Persons to Be Questioned*-The following questions should be asked of *(1)* the current owner of the *property*, *(2)* any major occupant of the *property* or, if the property does not have any *major occupants*, at least 10 % of the occupants of the *property*, and *(3)* in addition to the current owner and the occupants identified in *(2)*, any *occupant* likely to be using, treating, generating, storing, or disposing of *hazardous substances* or *petroleum products* on or from the *property*. A major occupant is any *occupant* using at least 40 % of the leasable area of the *property* or any anchor tenant when the *property* is a shopping center. In a multifamily *property* containing both residential and commercial uses, the *preparer* does not need to ask questions of the residential *occupants*. The *preparer* should ask each person to answer all questions to the best of the respondent's *actual knowledge* and in good faith. When completing the *site visit* column, the *preparer* should be sure to observe the *property* and any buildings and other structures on the *property*. The guide to this *transaction screen questionnaire* (see Sections 7-10) provides further details on the appropriate use of this questionnaire. (See Note 2.)
NOTE 2-Unk = "unknown" or "no response."

Description of Site Address:

Vacant / Undeveloped property

APN's 314-170-020, 314-180-023 and 314-180-024

USER

Question	Owner	Occupants (if applicable)	Observed During Site Visit	If yes, provide description
1a. Is the property used for an industrial use?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
1b. Is any adjoining property used for an industrial use?	Yes No Unk ○ ● ○	Yes No Unk ○ ○ ●	Yes No ○ ●	
2a. Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
2b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for an industrial use in the past?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
3a. Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
3b. Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
4a. Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
4b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
6a. Are there currently any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L)) or sacks of chemicals located on the property or at the facility?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	
7a. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?	Yes No Unk ○ ● ○	Yes No Unk ○ ● ○	Yes No ○ ●	

' Unk = "unknown" or "no response"

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Question	Owner	Occupants (if applicable)	Observed During Site Visit	If yes, provide description
7b. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?	Yes No Unk	Yes No Unk	Yes No	
8a. Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes No Unk	Yes No Unk	Yes No	
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes No Unk	Yes No Unk	Yes No	
9a. Is there currently any stained soil on the property?	Yes No Unk	Yes No Unk	Yes No	
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the property?	Yes No Unk	Yes No Unk	Yes No	
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the property?	Yes No Unk	Yes No Unk	Yes No	
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes No Unk	Yes No Unk	Yes No	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes No Unk	Yes No Unk	Yes No	
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes No Unk	Yes No Unk	Yes No	
12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?	Yes No Unk	Yes No Unk	Yes No	
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the property?	Yes No Unk	Yes No Unk	Yes No	
13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes No Unk	Yes No Unk	Yes No	
13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environment health agency?	Yes No Unk	Yes No Unk	Yes No	
14. Does the owner or occupant of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes No Unk	Yes No Unk		
15a. Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes No Unk	Yes No Unk		
15b. Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?	Yes No Unk	Yes No Unk		
15c. Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?	Yes No Unk	Yes No Unk		
15d. Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?	Yes No Unk	Yes No Unk		

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Question	Owner	Occupants (if applicable)	Observed During Site Visit	If yes, provide description
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?	Yes ○ No ● Unk ○	Yes ○ No ● Unk ○		
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	Yes ○ No ● Unk ○	Yes ○ No ● Unk ○		
18a. Does the property discharge waste-water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?	Yes ○ No ● Unk ○	Yes ○ No ● Unk ○	Yes ○ No ○	
18b. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary sewer system?	Yes ○ No ● Unk ○	Yes ○ No ● Unk ○	Yes ○ No ○	
19. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?	Yes ○ No ● Unk ○	Yes ○ No ● Unk ○	Yes ○ No ○	
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	Yes ○ No ● Unk ○	Yes ○ No ● Unk ○	Yes ○ No ○	

Government Records/Historical Sources Inquiry

(See guide, Section 10)

21. Do any of the following federal, state, or tribal government record systems list the property or any property within the search distance noted below (where available):	Approximate Minimum Search Distance, miles (kilometres)		
Federal NPL site	1.0	Yes ○	No ●
Federal Delisted NPL site	0.5	Yes ○	No ●
Federal CERCLIS	0.5	Yes ○	No ●
Federal CERCLIS NFRAP site	0.5	Yes ○	No ●
Federal RCRA CORRACTS facilities	1.0	Yes ○	No ●
Federal RCRA non-CORRACTS TSD	0.5	Yes ○	No ●
Federal RCRA generators	property and adjoining properties	Yes ○	No ●
Federal institutional control/engineering control registries	property only		
Federal ERNS	property only	Yes ○	No ●

State and tribal lists of hazardous waste sites identified for investigation or remediation:

State-and tribal-equivalent NPL	1.0	Yes ○	No ●
State-and tribal-equivalent	0.5	Yes ○	No ●
State-and tribal-landfill andlor solid waste disposal site lists	0.5	Yes ○	No ●
State-and tribal-leaking storage tank lists	0.5	Yes ○	No ●
State and tribal registered storage tank lists	property and adjoiningproperties	Yes ○	No ●
State and tribal institutional controllengineering control registries	property only	Yes ○	No ●
State and tribal voluntary cleanup sites	0.5	Yes ○	No ●
State and tribal Brownfield sites	0.5	Yes ○	No ●

22. Based upon a review of fire insurance maps (10.2.3) or local street directories (10.2.3), all as specified in the guide, are any buildings or other improvements on the property or on an adjoiningproperty identified as having been used for an industrial use or uses likely to lead to contamination of the property? Yes ○ No ● Unavailable ○

Result CLEAR

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The Owner questionnaire answers were provided was completed by:

Name: Mike Naggar
Title: Developer
Firm: Mike Naggar and Associates
Address: 445 South D Street
Perris, California 92570
Phone Number: 951-657-4281
Date:
Role (s) at the site:
Number of years at the site:
Relationship to use (e.g. principal, employee, agent, consultant):

The Occupant questionnaire answers were provided by:

Name: NA unoccupied
Title:
Firm:
Address:
Phone Number:
Date:
Role (s) at the site:
Number of years at the site:
Realationship to use (e.g. principal, employee, agent, consultant):

The Site Visit questionnaire was completed by:

Name: Tim Doyle
Title: Geologist
Firm: ESGS
Address: 42184 Remington Avenue
Temecula, California
Phone Number: 951-461-4028
Date: 7/20/23
Role (s) at the site: Assessor
Number of years at the site: NA
Realationship to use (e.g. principal, employee, agent, consultant):

It is the user's responsibility to draw conclusions regarding afirmative or unknown answers.

The Government Records and Historical Sources Inquiry questionnaire was completed by:

Name: Tim Doyle
Title: Geologist
Firm: ESGS
Address: 42184 Remington Avenue
Temecula, California
Phone Number: 951-461-4028
Date: 7/25/2023
Role (s) at the site: Assessor
Number of years at the site: NA
Relationship to use (e.g. principal, employee, agent, consultant):

User's relationship to the site (for example, owner, prospective purchaser, lender, etc.)

If the preparer (s) is different from the user, complete the following:

Name of User:
User's Address:
User's Phone Number:

Copies of the completed questionnaires have been filed at:

Copies of the completed questionnaires have been mailed or delivered to:

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Signature: Tim Doyle
Date: 7/25/2023
Signature:
Date:
Signature:
Date:

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PO Box C700
West Conshohocken, PA 19428-2959

Preliminary

Drainage Report

For

Mid County Parkway Commercial
NWC of Ramona and Nevada
DPR 22-00028

Perris, CA

August 2022

Revised
November 2023

United Engineering Group - California
8885 Haven Avenue
Suite 195
Rancho Cucamonga, CA 91730

Tel: (909) 466-9240

Provided for:

Optimus Building Corp.
c/o MNA
445 S D Street
Perris, CA 92570
Contact: Mike Naggar

This report has been prepared by or under the direction of the following registered civil engineer who attests to the technical information contained herein. The registered civil engineer has also judged the qualifications of any employees that have provided data and calculations upon which the recommendations, conclusions, and decisions are based.

Christopher F. Lenz, PE 63001

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APPENDICES

APPENDIX A: Onsite Hydrology Calculations
APPENDIX B: Contech Underground Storage System Sizing
APPENDIX C: Perris Valley MDP Excerpt
APPENDIX D: Infiltration Testing Results
APPENDIX E: FEMA FIRMETTE

1 INTRODUCTION

1.1. SITE DESCRIPTION

1.1.1. LOCATION

The project is located at the northwest corner of Ramona Expressway and Nevada Street in the City of Perris. Legally, it is parcels 314-180-023 and 314-180-024.

1.1.2. EXISTING FEATURES

The site consists of 11.24 gross acres of unsubdivided vacant land. The site drains gradually northwest to southeast with varying terrain with a flow slope of 0.7 percent. The site is bordered by developed properties to the north, and the highway to the west. It has been graded in the past and shows evidence of continued disturbance and compaction. Some seasonal grasses are present. There are no defined flow paths through the site. The site is within the Perris Valley MDP, with the proposed Line E regional storm drain system.

1.1.3. PROPOSED CONDITION

It is proposed that the subject property be developed to permit development of a Gas Station, two fast food restaurants, and a storage facility per the request of the client. Primary access to the site will be from Nevada Street. The buildings will be surrounded by parking on the south and east sides. The site will be primarily impervious surface, with some open space and landscape areas (some used as buffers and water quality features).

1.2. PURPOSE OF REPORT

The purpose of this report is to review the regional studies prepared for this area (Perris Valley Master Drainage Plan), analyze the proposed conditions hydrology and hydraulics, and ensure design compatibility with the master plan and city code. This report will analyze the hydrology of the landscape and assess the hydraulic conditions of the subject parcel to verify consistency with the previously listed reports.

1.3. FEMA INFORMATION

The Flood Insurance Rate Maps (Panel 06065C1430 G & H) for this subject property shows that the site falls within Zone X. Zone X denotes areas determined to be outside the 1% annual chance floodplain. Refer to Appendix E for detail.

2. EXISTING DRAINAGE PATTERNS

2.1. OFFSITE

There are no offsite flows impacting the subject property. Most regional drainage is blocked by the highway, with a few existing culverts outleting east of the highway. Flow form those culverts is routed south and east around the property by an existing flow path as identified on the existing condition map. The larger Line F flows outlet north of the site, and have been accommodated by the development north and routed to Line E via storm drain. See Figure 3 Offsite Exhibit – Optimus Logistics Center. No regional flows impact the site.

2.2. ONSITE

The site is un-subdivided vacant land. The site drains gradually northwest to southeast with varying terrain with a flow slope of 0.7 percent. The site is infill and is bordered by developed properties. It has been graded in the past shows evidence of continued disturbance and compaction. Some seasonal grasses are present. The runoff from the site is primarily sheet flow. The ultimate outfall is the northeast corner of the site. The site is within the Perris Valley MDP, Line E regional storm drain system.

3. PROPOSED DRAINAGE PATTERNS

3.1. OFFSITE

As the project is within the areas of the ADP, it will participate in regional fees. The site will outlet at the southeast corner via an existing earthen channel. From there, the adjacent owner will accept and routes those flows to the Line E facilities in Webster. There are no further regional or offsite drainage facilities proposed.

3.2. ONSITE

Due to the negligible infiltration potential, the project has been designed with underground storage to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24 hour duration, 10 year return frequency design storm. The site soils have tested infiltration potential less than the required 1.6in/hr (Appendix D), so bio swales designed along the south of the site will provide water quality treatment. De-watering of the underground storage will be provided by a pumping systems. In addition to the underground storage a system of storm drain is proposed to collect and route the site runoff (refer to section 5 and Figure 3 for detail).

4. HYDROLOGIC CONDITIONS

The Synthetic Unit Hydrograph and Rationale Methods have been employed to determine peak runoff amounts and volumes. The Riverside County Flood Control and Water Conservation District (RCFCD & WCD) Hydrology Manual (reference 1) was used to develop the hydrological parameters for the 1, 3, 6, and 24 hr 2, 5, and 10 year storm event. Refer to appendix A for detail.

In the existing condition, the proposed development envelope is relatively flat with an average flowline slope of 0.7 percent and is in relatively poor condition. It is proposed to be developed into a commercial center. The onsite runoff potential has been analyzed with the Synthetic Unit Hydrograph Method per the Riverside County Flood Control and Water Conservation District (RCFCD & WCD) Hydrology Manual (reference 1).
The Following Data is used in the calculations;

Soils Group – B
Pre-development Runoff Index – 78, with 0% impervious
Post-development Runoff Index – 56 with 95% impervious

Rainfall Data – NOAA 14
2yr – 1hr = 0.457”
100yr – 1hr = 1.35”
2yr – 3hr = 0.799”
100yr – 3hr = 2.01”
2yr – 6hr = 1.11”
100yr – 6hr = 2.70”
2yr – 24hr = 1.94”
100yr – 24hr = 4.91”

The results of that analysis are as follows, with detailed output in Appendix A;

Mid County Pre-Development								
	Storm Duration							
	1 hour		3 hour		6 hour		24 hour	
Frequency	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume
2 year	6.4	0.1	2.6	0.1	2.0	0.1	0.3	0.2
5 year	11.1	0.2	5.1	0.2	4.1	0.2	0.4	0.2
10 year	17.0	0.5	9.3	0.5	7.7	0.6	2.2	0.6

Mid County Post-Development								
	Storm Duration							
	1 hour		3 hour		6 hour		24 hour	
Frequency	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume
2 year	10.1	0.4	6.9	0.6	6.4	0.9	2.6	1.6
5 year	15.0	0.6	9.7	0.9	8.7	1.2	3.5	2.1
10 year	19.0	0.7	12.1	1.1	10.9	1.4	4.2	2.6

To mitigate the increased runoff from the development four underground storage facilities have been provided to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24 hour duration, 10 year return frequency design storm per the below table.

	Volume	
Mid County Parkway	[cf]	[ac-ft]
Pre Development 10yr 24hr	24,353	0.56
Post Development 10yr 24hr	110,945	2.55
Total Vol Required	86,592	1.99
Total Vol Provided	86,652	1.99

In total the 4 facilities mitigate the difference in 10 year 24 hour runoff volume from development. The footprint of the proposed underground systems is indicated on the proposed condition exhibit, and the grading and drainage plan, with additional detail in Appendix B. At time of final design additional storage, basin, and outlet details will be required.

5. HYDRAULIC CONDITIONS

5.1. Existing Conditions

There are no existing storm facilities affecting the subject site.

1.1 Proposed Conditions

The proposed condition for this site will be to construct a network of paved access within the site to convey storm runoff into a system of storm drain. Storm drains will be used to collect and route the runoff from the paved areas and into the underground systems. The underground systems will pump storm water to bio swales for treatment. Preliminary storm drain lines have been shown on the proposed condition exhibit, and the grading and drainage plan. For maintenance considerations a minimum 18" line size will be used, with sizing required at time of final design.

6. WATER QUALITY

The project will comply with Water Quality rules, with treatment provided by pre-treatment systems and bio-swales surface treatment. Refer to the Project Preliminary WQMP for details.

7. MAINTENANCE

It is proposed that none of the features discussed above to handle onsite flows, will be required to be placed in flood control easements (Max line size 36"). Maintenance and ownership of the onsite facilities with be the responsibility of the property owner. At the Cities request, storm drain easements can be provided.

Internal to the site, it is assumed that the underground systems will be the responsibility of the tenant, a property association, or the Owner, with easements being placed to allow for city access and emergency maintenance.

There are other smaller inlets, control structures, channels, and pipes will be the responsibility of the tenant, a property association, or the Owner.

REFERENCES

1. Riverside County Flood Control and Water Conservation District Hydrology Manual, April 1978.

Figure 1

Drainage Map Existing

MATCHLINE - SEE RIGHT

101
1504

NO PROPOSED IMPROVEMENTS IN THIS AREA

N00°29'44"E
330.93'

EXISTING 24" PIPE

MATCHLINE - SEE LEFT

EXISTING 24" PIPE

L=1892'
Lc=535'
A=11.24ac

102
1490

EXISTING 30" PIPE

EXISTING 36" PIPE

LEGEND:

- CONTRIBUTORY AREA & DISTURBANCE AREA
- FLOW DIRECTION
- ONSITE FLOWPATH
- 102 / XXXX — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- L=XXX' Lc=XXX' A=XXac — DRAINAGE AREA & DETAILS

LEGEND/ABBREVIATION

CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	P	PROPERTY LINE
GB	GRADE BREAK	PED.	PEDESTRIAN
HP	HIGH POINT	TYP.	TYPICAL
INV	INVERT		EXISTING FIRE HYDRANT
LP	LOW POINT		WATER VALVE
R/W	RIGHT-OF-WAY		WATER METER
P=XX.X	PAD ELEVATION		STREET LIGHT
FF=XX.X	FINISH FLOOR ELEVATION		PROPOSED STORM DRAIN LINE
2%	DIRECTION OF DRAINAGE/GRADE	1425	EXISTING CONTOUR
	STORAGE AREA 26' FIRE LANE		

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THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE
			ENGINEER	CITY	

DESIGN BY: DRAWN BY: CHECKED BY:

CITY OF PERRIS
APPROVED BY:
CITY ENGINEER DATE

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER F. LENZ NO. 63001 EXP. 6/30/24 CIVIL STATE OF CALIFORNIA

ueg united engineering group
8885 Haven Avenue - Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.unitedeng.com

PREPARED UNDER THE DIRECTION OF:
CHRISTOPHER F. LENZ 63001
DATE: _____ REGISTRATION EXPIRES 6-30-24

BENCH MARK:
NGS DATA POINT
DESIGNATION-432:PID-DX5439
3 ½" ALUMINUM DISC STAMPED "BM432"
SW CORNER PERRIS BLVD AND RIDER STREET BASE OF STEEL SIGNAL LIGHT, 3.5' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEVATION = 1455.11' NAVD 88

SCALE 1"=60'
FIELD BOOK
DESIGN
DRAWN
CHECKED

ZONING CASE #DPR __-_____ SPA 22-_____
PERRIS CA, 92571
COUNTY OF RIVERSIDE

PRELIMINARY GRADING & DRAINAGE PLAN MID COUNTY PARKWAY DRAINAGE EXISTING

FOR: OPTIMUS BUILDING CORP. W.O. CITY FILE NO. DPR 22-_____

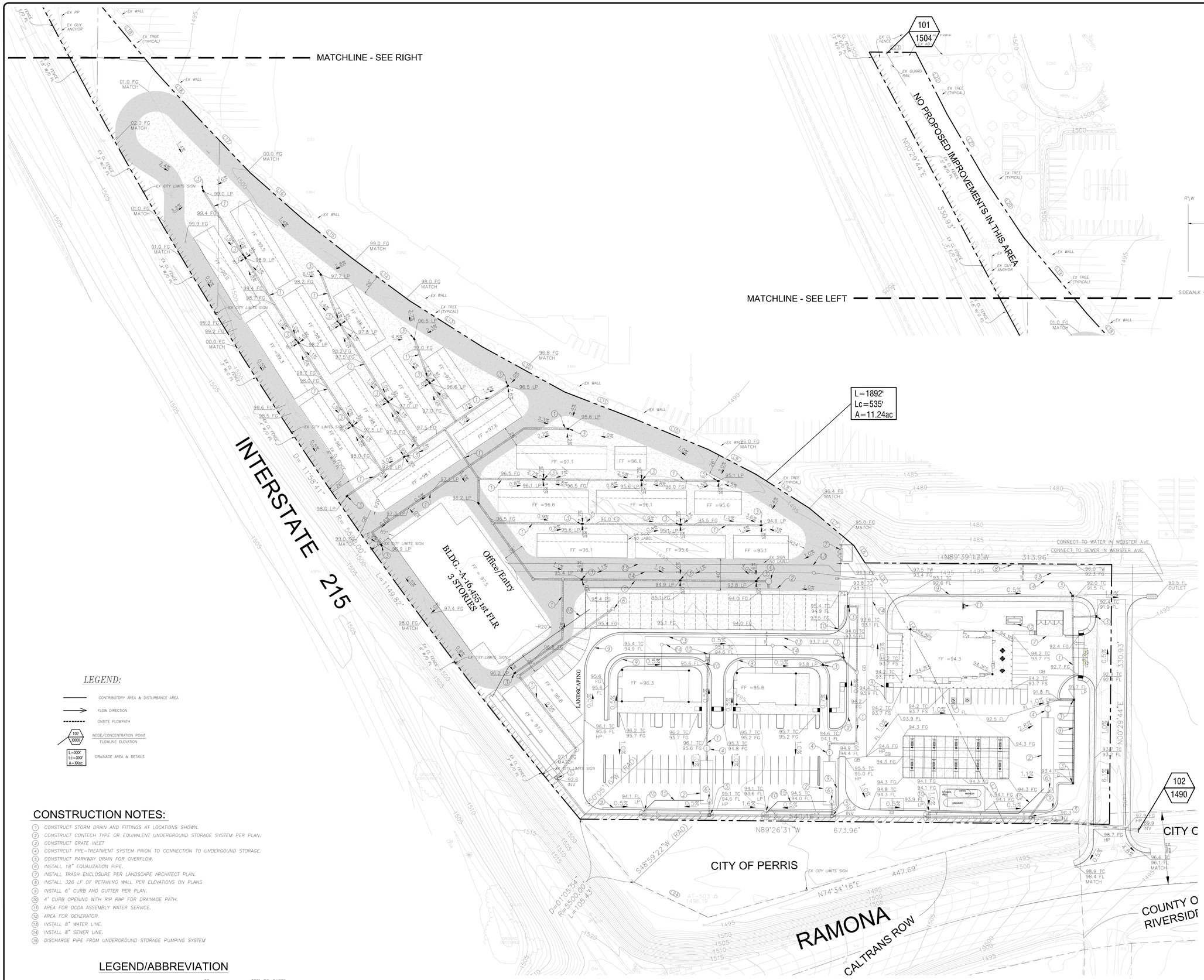
SHEET NO. 1 OF 1 SHEETS

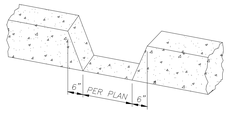
40' 20' 0' 40'
GRAPHIC SCALE: 1"=40'

BGR NO. _____ WDID:

FIGURE 2

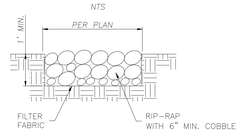
Drainage Map Proposed





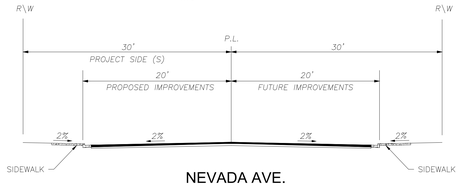
DETAIL "A" - CURB FACE OPENING

NTS



DETAIL "B" - RIP-RAP PAD

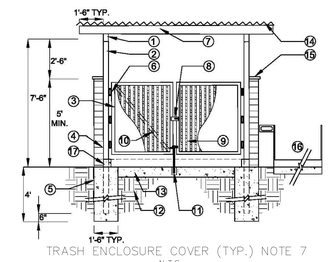
NTS



NEVADA AVE.

N.T.S.

LINE TABLE		
LINE #	LENGTH	BEARING
L10	102.87'	N67°26'31"W
L11	93.53'	N68°57'39"W
L12	119.79'	N61°15'53"W
L13	109.51'	N57°38'44"W
L14	92.36'	N53°28'24"W
L15	75.37'	N51°39'44"W
L16	93.15'	N48°36'22"W
L17	100.92'	N43°33'34"W
L18	73.44'	N42°24'15"W
L19	125.95'	N39°39'38"W
L20	88.95'	N33°36'49"W
L21	95.38'	N30°12'04"W
L22	87.81'	N26°52'30"W
L23	59.24'	N89°35'46"W



TRASH ENCLOSURE COVER (TYP.) NOTE 7

N.T.S.

TRASH ENCLOSRE COVER NOTES:
1. 4-INCH X 6-INCH METAL BEAM POWDER COATED
2. 4-INCH X 4-INCH TUBULAR STEEL POST. SET POST FLUSH TO WALL. GROUT FILL POST SOLID. PAINT WITH 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT.
3. GATE FRAME CONTINUOUS, ATTACH GATE FRAME TO STEEL POST WITH 3 HEAVY DUTY HINGES. CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
4. CMU WALL / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
5. CONCRETE FOOTING / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
6. HEAVY DUTY HINGES.
7. METAL TRELLIS POWDER COATED (OR 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT); COLOR TO BE SELECTED /REFER TO SHOP DRAWINGS FOR ROOF FRAMING.
8. 3-INCH X 8-INCH X 1/4-INCH THICK GALVANIZED STEEL SJOP PLATE AND LOCKABLE KEEPER. WELD TO GATE FRAME - AS SHOWN / CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.
9. MINI-V-BEAM 26 GAUGE WITH ENDURA CLAD FINISH AS MANUFACTURED BY ASC PACIFIC INC. OR APPROVED EQUAL. SPOT WELD TO ANGLE FRAME (CONTRACTOR TO SUBMIT SHOP DRAWINGS).
10. 9-INCH X 1/2-INCH GALVANIZED STEEL DIAGONAL CROSS BRACE / FILLET WELD TO FRAME AND SPOT WELD TO MINI-V-BEAM (AT BACK OF GATE).
11. HEAVY DUTY DROP CRANE BOLT. ATTACH TO GATE FRAME. SET 1-6 INCHES LONG X 1-INCH O.D. GALVANIZED PIPE SLEEVE TO ACCEPT BOLT. 'STANLY' CD 10009-18 INCHES OR APPROVED EQUAL.
12. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.
13. 6-INCH THICK PCC CONCRETE PAD WITH 6 X 6 X 10 WWM.
14. METAL ROOF: CORRUGATED STEEL - BERRIDGE LEAD-COPE STRAIGHT S-DECK / INSTALL PER MANUFACTURERS SPECIFICATIONS.
15. 8-INCH X 2-INCH X 16-INCH OMJ CAP TO MATCH WALL COLOR.
16. DISABLED ACCESSIBLE RAMP AND HANDRAIL IF REQUIRED.
17. CONCRETE CURB
NOTES
A. CONCRETE FOOTING TO ACHIEVE 4300 PSI @ 28 DAYS.
B. TRASH BINS - SIZE AND NUMBER AS REQUIRED BY CITY.

LEGEND:

- CONTRIBUTORY AREA & DISTURBANCE AREA
- FLOW DIRECTION
- ONSITE FLOWPATH
- 102 / XXXX — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- L=XXX' / Lc=XXX' / A=XXac — DRAINAGE AREA & DETAILS

CONSTRUCTION NOTES:

1. CONSTRUCT STORM DRAIN AND FITTINGS AT LOCATIONS SHOWN.
2. CONSTRUCT CONTECH TYPE OR EQUIVALENT UNDERGROUND STORAGE SYSTEM PER PLAN.
3. CONSTRUCT GRATE INLET
4. CONSTRCUT PRE-TREATMENT SYSTEM PRION TO CONNECTION TO UNDERGOUND STORAGE.
5. CONSTRUCT PARKWAY DRAIN FOR OVERFLOW.
6. INSTALL 18" EQUALIZATION PIPE.
7. INSTALL TRASH ENCLOSURE PER LANDSCAPE ARCHITECT PLAN.
8. INSTALL 326 LF OF RETAINING WALL PER ELEVATIONS ON PLANS
9. INSTALL 6" CURB AND GUTTER PER PLAN.
10. 4' CURB OPENING WITH RIP RAP FOR DRAINAGE PATH.
11. AREA FOR DCDA ASSEMBLY WATER SERVICE.
12. AREA FOR GENERATOR.
13. INSTALL 8" WATER LINE.
14. INSTALL 8" SEWER LINE.
15. DISCHARGE PIPE FROM UNDERGROUND STORAGE PUMPING SYSTEM

LEGEND/ABBREVIATION

CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	℄	PROPERTY LINE
GB	GRADE BREAK	PED.	PEDESTRIAN
HP	HIGH POINT	TYP.	TYPICAL
INV	INVERT		EXISTING FIRE HYDRANT
LP	LOW POINT		WATER VALVE
R/W	RIGHT-OF-WAY	W	WATER METER
P=XX.X	PAD ELEVATION		STREET LIGHT
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2%	DIRECTION OF DRAINAGE/GRADE	1425	EXISTING CONTOUR
	STORAGE AREA 26' FIRE LANE		

BGR NO. _____ WDID:

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MARK	BY	DATE	REVISIONS	APPR.	DATE
				CITY	

ENGINEER
DESIGN BY: DRAWN BY: CHECKED BY:

CITY OF PERRIS
APPROVED BY:
CITY ENGINEER DATE

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER F. LENZ — NO. 63001 — EXP. 6/30/24 — CIVIL — STATE OF CALIFORNIA

ueg united engineering group
8885 Haven Avenue - Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.unitedeng.com

PREPARED UNDER THE DIRECTION OF:
CHRISTOPHER F. LENZ 63001
DATE: _____ REGISTRATION EXPIRES 6-30-24

BENCH MARK:
NGS DATA POINT
DESIGNATION-432:PID-DX5439
3 4" ALUMINUM DISC STAMPED "BM432"
SW CORNER PERRIS BLVD AND RIDER STREET BASE OF STEEL SIGNAL LIGHT, 3.0' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEVATION = 1455.11' NAVD 88

SCALE 1"=60'
FIELD BOOK
DESIGN
DRAWN
CHECKED

ZONING CASE #DPR ___-_____ SPA 22-_____
PERRIS CA. 92571
COUNTY OF RIVERSIDE

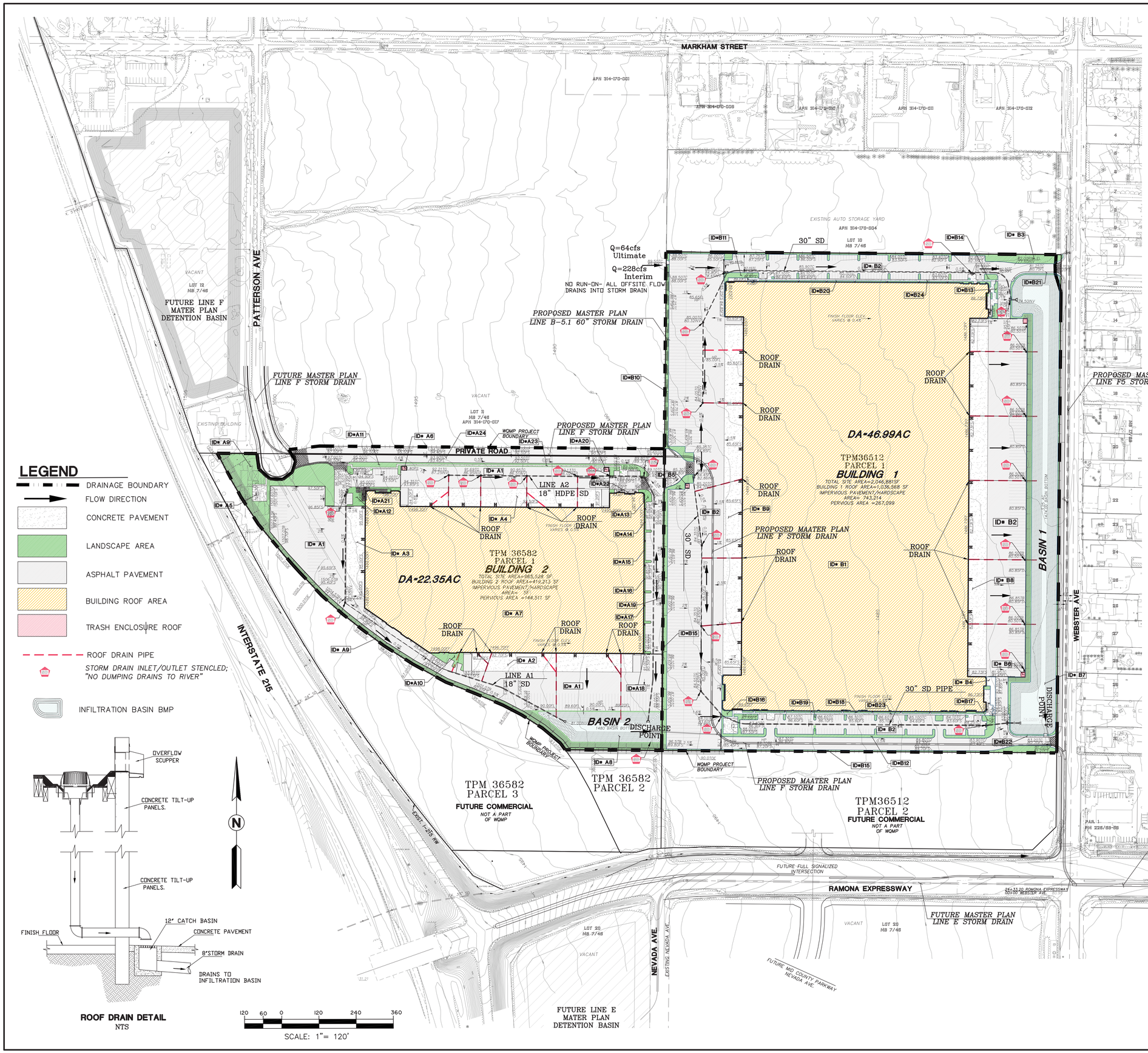
PRELIMINARY GRADING & DRAINAGE PLAN MID COUNTY PARKWAY DRAINAGE PROPOSED

FOR: OPTIMUS BUILDING CORP. W.O. CITY FILE NO. DPR 22-_____

SHEET NO. 1 OF 1 SHEETS

FIGURE 3

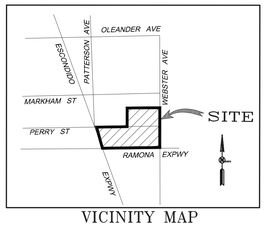
Offsite Exhibit – Optimus Logistics Center



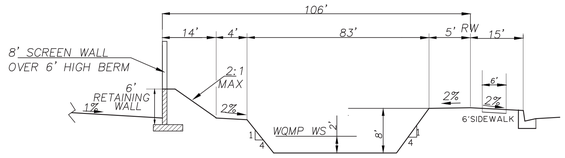
LEGEND

- DRAINAGE BOUNDARY
- FLOW DIRECTION
- CONCRETE PAVEMENT
- LANDSCAPE AREA
- ASPHALT PAVEMENT
- BUILDING ROOF AREA
- TRASH ENCLOSURE ROOF
- ROOF DRAIN PIPE
- STORM DRAIN INLET/OUTLET STENCLED; "NO DUMPING DRAINS TO RIVER"
- INFILTRATION BASIN BMP

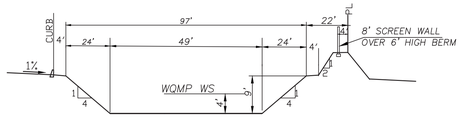
ROOF DRAIN DETAIL
NTS



VICINITY MAP



BUILDING 1 INFILTRATION BASIN
TYPICAL SECTION
NTS



BUILDING 2 INFILTRATION BASIN
TYPICAL SECTION
NTS

BOTTOM AND SIDES OF THE BASINS TO BE PLANTED WITH NATIVE GRASS PLANT SPECIES.

INFILTRATION BASIN SUMMARY TABLE

BASIN NO.	ACRES TREATED	VOLUME REQUIRED	VOLUME PROVIDED	DEPTH
BLUDING 1 BASIN NO. 1	49.66 AC	83,407 CF	100,964 CF	2 FT
BLUDING 2 BASIN NO. 2	22.35 AC	39,274 CF	43,696 CF	4 FT

BASIN 1
2 YEAR STORM BASIN DISCHARGE

BUILDING 1	3HR	6HR	24HR
BASIN NO. 1	cfs	cfs	cfs
PRE-DEVELOPMENT	11.67	9.40	1.12
POST DEVELOPMENT	25.77	22.21	8.52
BASIN OUTLET	0.29	0.32	0.72
% OF PRE-DEVELOPED.	2.5%	3.4%	64.3%

BASIN 2
2 YEAR STORM BASIN DISCHARGE

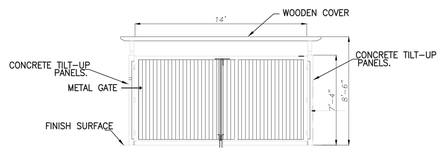
BUILDING 2	3HR	6HR	24HR
BASIN NO. 2	cfs	cfs	cfs
PRE-DEVELOPMENT	7.09	5.46	0.55
POST DEVELOPMENT	14.08	12.72	4.52
BASIN OUTLET	0.44	0.48	0.59
% OF PRE-DEVELOPED.	6.2%	8.8%	107.3%

BASIN 1
10 YEAR STORM BASIN DISCHARGE

BUILDING 1	3HR	6HR	24HR
BASIN NO. 1	cfs	cfs	cfs
PRE-DEVELOPMENT	26.68	26.68	26.68
POST DEVELOPMENT	43.69	36.53	13.78
BASIN OUTLET	0.35	0.92	2.36
% OF PRE-DEVELOPED.	1.3%	4.2%	75.4%

BASIN 2
10 YEAR STORM BASIN DISCHARGE

BUILDING 2	3HR	6HR	24HR
BASIN NO. 2	cfs	cfs	cfs
PRE-DEVELOPMENT	15.70	12.48	1.65
POST DEVELOPMENT	23.82	20.58	7.32
BASIN OUTLET	0.51	0.73	3.90
% OF PRE-DEVELOPED.	1.3%	4.2%	236.4%



TYPICAL TRASH ENCLOSURE

ENGINEER
HLC CIVIL ENGINEERING
39281 VIA CADIZ
MURRIETA CA 92563
(951)640-0957 Email: hlc.eng@verizon.net

PREPARED MARCH 29, 2014

POST-CONSTRUCTION BMP SITE PLAN
P12-10-0005
OPTIMUS LOGISTICS CENTER

Appendix A

Preliminary

Drainage Report

For

Perris Gateway Phase II Commercial
NWC of Ramona and Webster
DPR __-_____

Perris, CA

July 2023

Revised
November 2023

United Engineering Group - California
8885 Haven Avenue
Suite 195
Rancho Cucamonga, CA 91730

Tel: (909) 466-9240

Provided for:

Optimus Building Corp.
c/o MNA
445 S D Street
Perris, CA 92570
Contact: Mike Naggar

This report has been prepared by or under the direction of the following registered civil engineer who attests to the technical information contained herein. The registered civil engineer has also judged the qualifications of any employees that have provided data and calculations upon which the recommendations, conclusions, and decisions are based.

Christopher F. Lenz, PE 63001

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APPENDIX A: Onsite Hydrology Calculations
APPENDIX B: Contech Underground Storage System Sizing
APPENDIX C: Perris Valley MDP Excerpt
APPENDIX D: Infiltration Testing Results
APPENDIX E: FEMA FIRMETTE

1 INTRODUCTION

1.1. SITE DESCRIPTION

1.1.1. LOCATION

The project is located at the northwest corner of Ramona Expressway and Wester Avenue in the City of Perris. Legally, it is parcel 314-170-020.

1.1.2. EXISTING FEATURES

The site consists of 12.23 gross acres of unsubdivided vacant land. The site drains gradually southwest to northeast with varying terrain with a flow slope of 0.7 percent. The site is bordered by developed properties to the north and east, and the highway to the west. It has been graded in the past and shows evidence of continued disturbance and compaction. Some seasonal grasses are present. There are no defined flow paths through the site. The site is within the Perris Valley MDP, with the proposed Line E regional storm drain system.

1.1.3. PROPOSED CONDITION

It is proposed that the subject property be developed to permit development of eight (8) buildings, including a Gas Station, fast food restaurants, sit down restaurants, and a car wash per the request of the client. Access to the site will be from the shared driveway along the western property line, three (3) driveways along Ramona, and two (2) driveways along Webster. The buildings will be surrounded by parking and drive aisles. The site will be primarily impervious surface, with some open space and landscape areas (some used as buffers and water quality features).

1.2. PURPOSE OF REPORT

The purpose of this report is to review the regional studies prepared for this area (Perris Valley Master Drainage Plan), analyze the proposed conditions hydrology and hydraulics, and ensure design compatibility with the master plan and city code. This report will analyze the hydrology of the landscape and assess the hydraulic conditions of the subject parcel to verify consistency with the previously listed reports.

1.3. FEMA INFORMATION

The Flood Insurance Rate Maps (Panel 06065C1430 G & H) for this subject property shows that the site falls within Zone X. Zone X denotes areas determined to be outside the 1% annual chance floodplain. Refer to Appendix E for detail.

2. EXISTING DRAINAGE PATTERNS

2.1. OFFSITE

There are two concentrations of offsite flow impacting the subject property. A sheet flow condition enters the site along the western property line from the undeveloped land to the west (Perris Gateway Phase I). At the southwest corner of the site, there is an existing earthen channel that conveys runoff from the onramp easterly along the north side of Ramona Expressway. Flows continue easterly in the earthen channel before entering an existing crossing of Webster. See Figure 3 Offsite Exhibit – Optimus Logistics Center. No regional flows impact the site.

2.2. ONSITE

The site is un-subdivided vacant land. The site drains gradually southwest to northeast with varying terrain with a flow slope of 0.7 percent. The site is infill and is bordered by developed properties. It has been graded in the past shows evidence of continued disturbance and compaction. Some seasonal grasses are present. The runoff from the site is primarily sheet flow. The ultimate outfall is the northeast corner of the site. The site is within the Perris Valley MDP, Line E regional storm drain system.

3. PROPOSED DRAINAGE PATTERNS

3.1. OFFSITE

As the project is within the area of the ADP, it will participate in regional fees. The project will accept the existing 32.6cfs at the southwest corner and route it through a 36" RCP easterly and connect to the existing crossing of Webster. The project will remove the existing headwall and install a storm drain manhole connection at that outlet. This 36" RCP will also function as the ultimate outfall of the onsite storm drain. There are no further regional or offsite drainage facilities proposed.

3.2. ONSITE

The project has been designed with underground storage to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24 hour duration, 10 year return frequency design storm. The site soils do not have suitable infiltration potential to meet the required 1.6in/hr (Appendix D), so bio swales will provide water quality treatment. De-watering of the underground storage will be provided by a pumping system. In addition to the underground storage a system of storm drain is proposed to collect and route the site runoff (refer to section 5 and Figure 3 for detail).

4. HYDROLOGIC CONDITIONS

The Synthetic Unit Hydrograph and Rationale Methods have been employed to determine peak runoff amounts and volumes. The Riverside County Flood Control and Water Conservation District (RCFCD & WCD) Hydrology Manual (reference 1) was used to develop the hydrological parameters for the 1, 3, 6, and 24 hr 2, 5, and 10 year storm event. Refer to appendix A for detail.

In the existing condition, the proposed development envelope is relatively flat with an average flowline slope of 0.7 percent and is in relatively poor condition. It is proposed to be developed into a commercial center. The onsite runoff potential has been analyzed with the Synthetic Unit Hydrograph Method per the Riverside County Flood Control and Water Conservation District (RCFCD & WCD) Hydrology Manual (reference 1).
The Following Data is used in the calculations;

Soils Group – B
Pre-development Runoff Index – 78, with 20% impervious (streets)
Post-development Runoff Index – 56 with 95% impervious

Rainfall Data – NOAA 14
2yr – 1hr = 0.457”
100yr – 1hr = 1.35”
2yr – 3hr = 0.799”
100yr – 3hr = 2.01”
2yr – 6hr = 1.11”
100yr – 6hr = 2.70”
2yr – 24hr = 1.94”
100yr – 24hr = 4.91”

The results of that analysis are as follows, with detailed output in Appendix A;

Perris Gateway Phase II - Pre Development								
	Storm Duration							
	1 hour		3 hour		6 hour		24 hour	
Frequency	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume
2 year	8.0	0.16	3.8	0.16	3.0	0.18	0.3	0.20
5 year	15.5	0.46	8.6	0.49	7.2	0.53	2.1	0.52
10 year	19.8	0.62	10.9	0.68	9.1	0.72	2.9	0.78

Perris Gateway Phase II - Post Development								
	Storm Duration							
	1 hour		3 hour		6 hour		24 hour	
Frequency	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume	Q Peak	Volume
2 year	11.4	0.41	7.6	0.70	7.0	0.97	2.8	1.70
5 year	17.4	0.61	11.0	0.97	10.0	1.31	3.8	2.31
10 year	21.8	0.77	13.4	1.17	12.1	1.57	4.6	2.77

To mitigate the increased runoff from the development, four underground storage facilities have been provided to offset the difference in runoff hydrograph volume between the developed and pre-developed condition for the 24 hour duration, 10 year return frequency design storm per the below table.

	Volume	
SWC Ramona & Perris	[cf]	[ac-ft]
Pre Development 10yr 24hr	34,007	0.78
Post Development 10yr 24hr	120,718	2.77
Total Vol Required	86,711	1.99
Total Vol Required/Acre	7090	0.16
Total Vol Provided	87,522	2.01

The project is proposing 4 parcels, and each areas drainage mitigation is designed to stand alone if need be. As such the design storage for each is prorated per acre. See The proposed condition exhibit Appendix A for additional detail. Area A will provide 23,241 cf of storage. Area B will provide 19,953 cf of storage. Area C will provide 28,003 cf of storage. And Area D will provide 16,325 cf of storage. In total the 4 facilities mitigate the difference in 10 year 24 hour runoff volume from development. The footprint of the proposed underground systems is indicated on the proposed condition exhibit, and the grading and drainage plan, with additional detail in Appendix B. At time of final design additional storage, basin, and outlet details will be required.

5. HYDRAULIC CONDITIONS

5.1. Existing Conditions

There are no existing storm facilities affecting the subject site.

1.1 Proposed Conditions

The proposed condition for this site will be to construct a network of paved access within the site to convey storm runoff into a system of storm drain. Storm drain will be used to collect and route the runoff from the paved areas and into the surface basins or underground systems. The underground systems will infiltrate storm water for treatment. Preliminary storm drain lines have been shown on the proposed condition exhibit, and the grading and drainage plan. For maintenance considerations a minimum 18" line size will be used, with sizing required at time of final design.

6. WATER QUALITY

The project will comply with Water Quality rules, with treatment provided by pre-treatment systems and bio-swale surface treatment. Refer to the Project Preliminary WQMP for details.

7. MAINTENANCE

It is proposed that the 36" RCP storm drain, discussed above to handle offsite flows, will not be required to be placed in flood control easements (Max line size 36"). It will be placed within City of Perris Right of way and will become the maintenance responsibility of the City. Maintenance and ownership of the onsite facilities with be the responsibility of the property owner. At the Cities request, storm drain easements can be provided.

Internal to the site, it is assumed that the underground systems will be the responsibility of the tenant, a property association, or the Owner, with easements being placed to allow for city access and emergency maintenance.

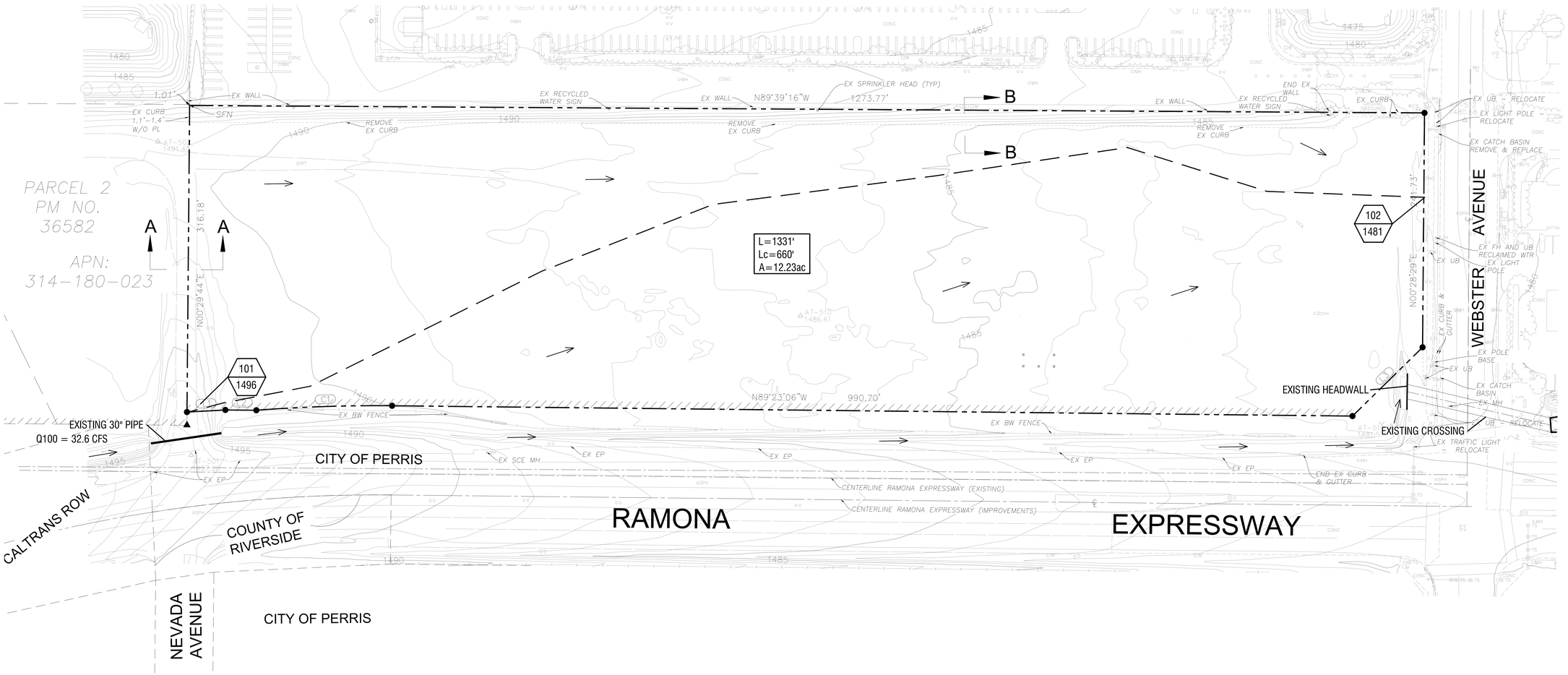
There are other smaller inlets, control structures, channels, and pipes will be the responsibility of the tenant, a property association, or the Owner.

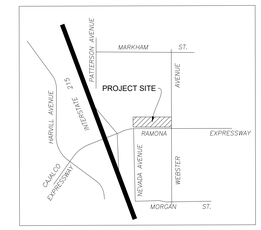
REFERENCES

1. Riverside County Flood Control and Water Conservation District Hydrology Manual, April 1978.

Figure 1

Drainage Map Existing





VICINITY MAP
N.T.S.

N

40' 20' 0' 40'
GRAPHIC SCALE: 1"=40'

SURVEYOR'S NOTES:

- ● INDICATES FOUND 1" I.P., NAIL & TAG, LS 8012, PER PM NO. 36512, P.M.B. 242/33-37
- ▲ INDICATES FOUND 1" I.P., NAIL & TAG, LS 8012, PER PM NO. 36582, P.M.B. 242/30-32
- PROJECT BOUNDARY
- INDICATES ABUTTER'S RIGHTS RELINQUISHED
- SFN SEARCHED, FOUND NOTHING

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS N 89°26'31" W, SHOWN AS THE SOUTH LINE OF PARCELS 2 AND 3 ON PARCEL MAP NO. 36582, AS PER MAP FILED IN BOOK 242, PAGES 30 THROUGH 32, INCLUSIVE, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

LEGAL DESCRIPTION:

PARCELS 2 OF PARCEL MAP NO. 36512, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 242, PAGES 33 THROUGH 37, INCLUSIVE OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN'S: 314-170-020

PROPERTY ADDRESS:

PROPERTY IS A VACANT SITE WITH NO ADDRESS

GENERAL NOTES:

1. AS TO THE TITLE MATTERS SHOWN HEREON, UNITED ENGINEERING GROUP HAS RELIED SOLELY ON THE COMMITMENT FOR TITLE INSURANCE, COMMITMENT NO. NCS-1159244-ONT1, DATED DECEMBER 6, 2022, AS PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY NATIONAL COMMERCIAL SERVICES. UNITED ENGINEERING GROUP MAKES NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT TITLE COMMITMENT.
2. GROSS SITE AREA: TOTAL = 9.036 ACRES.
3. ASSESSOR'S PARCEL NUMBERS: 314-170-020.
4. THERE ARE NO BUILDINGS ON THE SITE.
5. THERE WAS NO OBSERVED EVIDENCE OF CEMETERIES/BURIAL GROUNDS ON THE SUBJECT PROPERTY.
6. THERE WAS NO OBSERVED EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS ON THE SUBJECT PROPERTY.
7. THERE WAS NO OBSERVED EVIDENCE OF SITES USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
8. PROPERTY HAS ACCESS TO WEBSTER AVENUE AND TO RAMONA EXPRESSWAY (DULY DEDICATED AND ACCEPTED PUBLIC STREET), HOWEVER, ABUTTER'S RIGHT HAVE BEEN RELINQUISHED ON RAMONA EXPRESSWAY.

LEGEND:

- CONTRIBUTORY AREA & DISTURBANCE AREA
- FLOW DIRECTION
- ONSITE FLOWPATH
- 102 / XXXX — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- L=XXX' Lc=XXX' A=XXac — DRAINAGE AREA & DETAILS

FLOOD PLAIN NOTE:

THE SUBJECT PARCEL IS IN ZONE X PER THE FLOOD INSURANCE RATE MAP (FIRM).

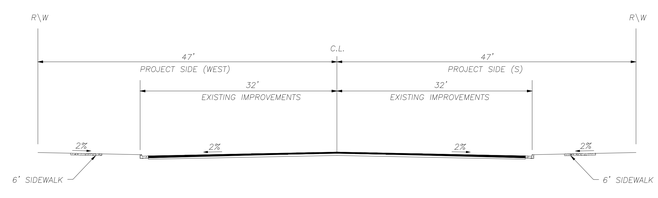
MAP NO. 06065C1430H EFFECTIVE 8/18/14 AND MAP NO. 06065C1410G EFFECTIVE 8/28/08.

LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.71'	N86°54'01"E
L2	31.91'	N89°26'31"W
L3	101.23'	N45°32'41"E

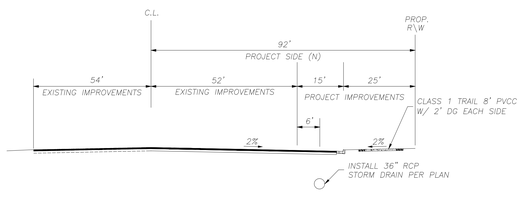
CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C1	1592.00'	140.15'	5°02'38"

LEGEND/ABBREVIATION

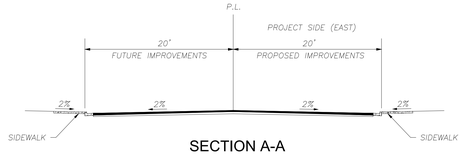
CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	℄	PROPERTY LINE
GB	GRADE BREAK	PED.	PEDESTRIAN
HP	HIGH POINT	TYP.	TYPICAL
INV	INVERT		EXISTING FIRE HYDRANT
LP	LOW POINT		WATER VALVE
R/W	RIGHT-OF-WAY		WATER METER
P=XX.X	PAD ELEVATION		STREET LIGHT
FF=XX.X	FINISH FLOOR ELEVATION		PROPOSED STORM DRAIN LINE
2%	DIRECTION OF DRAINAGE/GRADE	1425	EXISTING CONTOUR



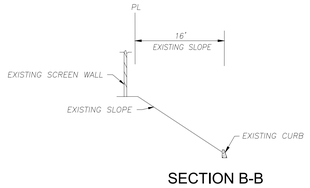
WEBSTER AVE.
SECONDARY ARTERIAL
N.T.S.



RAMONA EXPRESSWAY - LOOKING WEST
N.T.S.



SECTION A-A
SHARED PROJECT ACCESS
NTS



SECTION B-B
N.T.S.

PREPARED FOR:

OPTIMUS BUILDING CORPORATION (OBC)
c/o MIKE NAGGAR
445 S. D STREET
PERRIS, CA 92570

BGR NO. _____ WDID:

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.
THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE

ENGINEER — CITY
DESIGN BY: DRAWN BY: CHECKED BY:

CITY OF PERRIS
APPROVED BY:
CITY ENGINEER DATE

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER F. LENZ — NO. 63001 — EXP. 6/30/24 — CIVIL — STATE OF CALIFORNIA

ueg united engineering group
8885 Haven Avenue - Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.unitedeng.com

PREPARED UNDER THE DIRECTION OF:
CHRISTOPHER F. LENZ 63001
DATE: _____ REGISTRATION EXPIRES 6-30-24

BENCH MARK:
NGS DATA POINT
DESIGNATION-432;PID-DX5439
3 ¼" ALUMINUM DISC STAMPED "BM432" SW CORNER PERRIS BLVD AND RIDER STREET BASE OF STEEL SIGNAL LIGHT, 3.5' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEVATION = 1455.11' NAVD 88

SCALE
FIELD BOOK
DESIGN
DRAWN
CHECKED

ZONING CASE #DPR __-_____ SPA __-_____
PERRIS CA, 92571
COUNTY OF RIVERSIDE

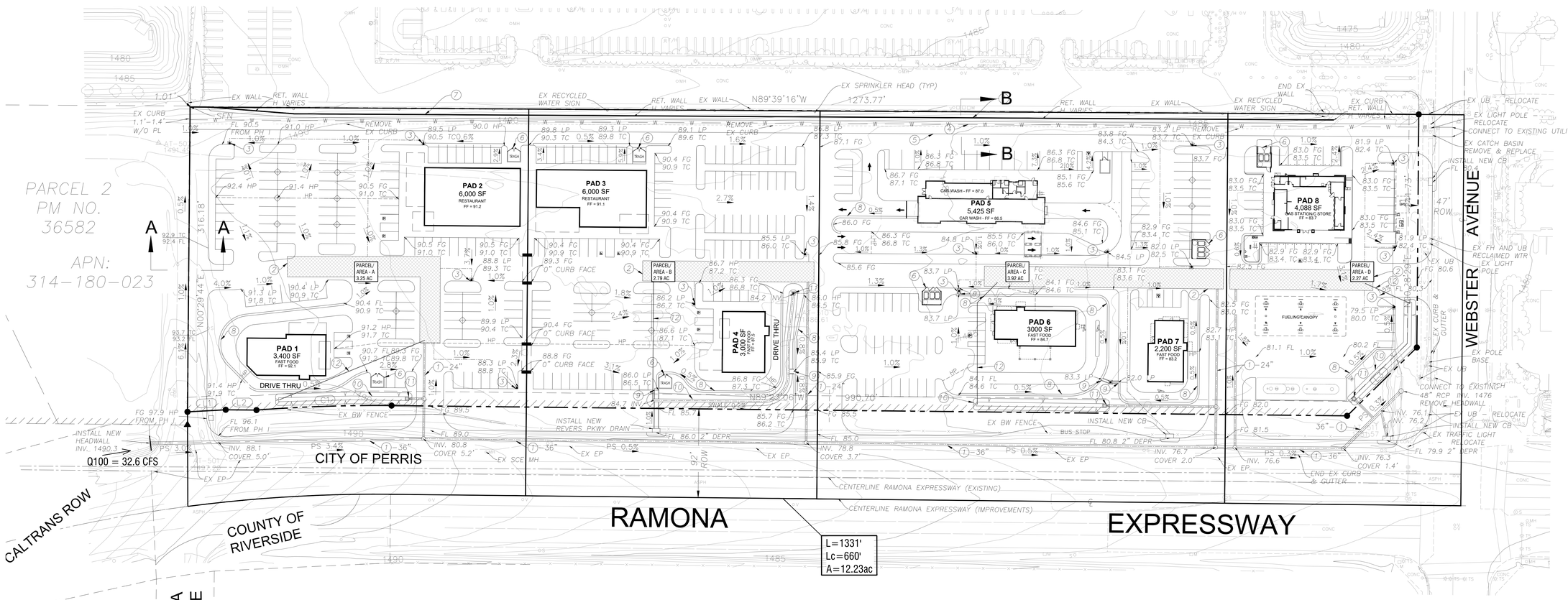
PRELIMINARY GRADING & DRAINAGE PLAN
PERRIS GATEWAY - PHASE II
DRAINAGE - EXISTING CONDITION

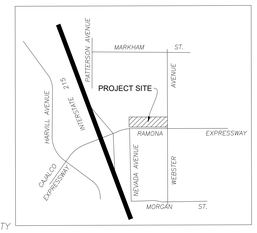
FOR: OPTIMUS BUILDING CORP. W.O. CITY FILE NO. DPR __-_____

SHEET NO. __ OF 1 SHEETS

FIGURE 2

Drainage Map Proposed





VICINITY MAP
N.T.S.

GRAPHIC SCALE: 1"=40'

SURVEYOR'S NOTES:

- ● INDICATES FOUND 1" I.P., NAIL & TAG, LS 8012, PER PM NO. 36512, P.M.B. 242/33-37
- ▲ INDICATES FOUND 1" I.P., NAIL & TAG, LS 8012, PER PM NO. 36582, P.M.B. 242/30-32
- PROJECT BOUNDARY
- INDICATES ABUTTER'S RIGHTS RELINQUISHED
- SFN SEARCHED, FOUND NOTHING

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS N 89°26'31" W, SHOWN AS THE SOUTH LINE OF PARCELS 2 AND 3 ON PARCEL MAP NO. 36582, AS PER MAP FILED IN BOOK 242, PAGES 30 THROUGH 32, INCLUSIVE, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

LEGAL DESCRIPTION:

PARCELS 2 OF PARCEL MAP NO. 36512, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 242, PAGES 33 THROUGH 37, INCLUSIVE, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN'S: 314-170-020

PROPERTY ADDRESS:

PROPERTY IS A VACANT SITE WITH NO ADDRESS

GENERAL NOTES:

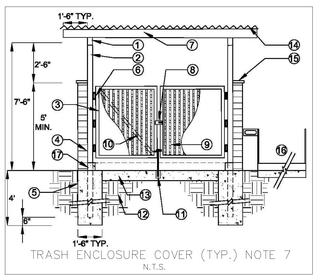
1. AS TO THE TITLE MATTERS SHOWN HEREON, UNITED ENGINEERING GROUP HAS RELIED SOLELY ON THE COMMITMENT FOR TITLE INSURANCE, COMMITMENT NO. NCS-1159244-ONT1, DATED DECEMBER 6, 2022, AS PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY NATIONAL COMMERCIAL SERVICES. UNITED ENGINEERING GROUP MAKES NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT TITLE COMMITMENT.
2. GROSS SITE AREA: TOTAL = 9.036 ACRES.
3. ASSESSOR'S PARCEL NUMBERS: 314-170-020.
4. THERE ARE NO BUILDINGS ON THE SITE.
5. THERE WAS NO OBSERVED EVIDENCE OF CEMETERIES/BURIAL GROUNDS ON THE SUBJECT PROPERTY.
6. THERE WAS NO OBSERVED EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS ON THE SUBJECT PROPERTY.
7. THERE WAS NO OBSERVED EVIDENCE OF SITES USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
8. PROPERTY HAS ACCESS TO WEBSTER AVENUE AND TO RAMONA EXPRESSWAY (DULY DEDICATED AND ACCEPTED PUBLIC STREET), HOWEVER, ABUTTER'S RIGHT HAVE BEEN RELINQUISHED ON RAMONA EXPRESSWAY.

CONSTRUCTION NOTES:

1. CONSTRUCT STORM DRAIN AND FITTINGS AT LOCATIONS SHOWN
2. CONSTRUCT CONTECH TYPE OR EQUIVALENT UNDERGROUND STORAGE SYSTEM PER PLAN
3. CONSTRUCT GRATE INLET
4. INSTALL 8" WATER LINE
5. INSTALL 8" SEWER LINE
6. INSTALL TRASH ENCLOSURE PER LANDSCAPE ARCHITECT PLAN
7. INSTALL RETAINING WALL PER PLAN AND SECTION B
8. INSTALL 6" CURB AND GUTTER PER PLAN
9. 4' CURB OPENING WITH RIP RAP FOR DRAINAGE PATH
10. CONSRUCT WATER QUALITY SWALE PER PLAN AND DETAILS
11. CONSTRUCT DROP INLET WITH GRATE FOR OVERFLOW.
12. DISCHARGE PIPE FROM UNDERGROUND STORAGE PUMPING SYSTEM

LEGEND:

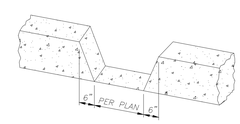
- CONTRIBUTORY AREA & DISTURBANCE AREA
- L=XXX' Lc=XXX' A=XXac — DRAINAGE AREA & DETAILS
- PARCEL/ AREA - A 3.25 AC — SUB AREA DETAILS



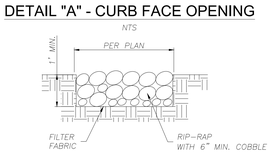
TRASH ENCLOSURE COVER (TYP.) NOTE 7
N.T.S.

TRASH ENCLOSURE COVER NOTES:
1. 4-INCH X 6-INCH METAL BEAM POWDER COATED
2. 4-INCH X 4-INCH TUBULAR STEEL POST. SET POST FLUSH TO WALL. GROUT FILL POST SOLID. PAINT WITH 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT.
3. GATE FRAME CONTINUOUS, ATTACH GATE FRAME TO STEEL POST WITH 3 HEAVY DUTY HINGES. CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
4. CMU WALL / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
5. CONCRETE FOOTING / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
6. HEAVY DUTY HINGES.
7. METAL TRELLIS POWDER COATED (OR 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT); COLOR TO BE SELECTED /REFER TO SHOP DRAWINGS FOR ROOF FRAMING.
8. 3-INCH X 8-INCH X 14-INCH THICK GALVANIZED STEEL SLOP PLATE AND LOCKABLE KEEPER. WELD TO GATE FRAME - AS SHOWN / CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.
9. MINI-V-BEAM 26 GAUGE WITH ENDURA CLAD FINISH AS MANUFACTURED BY ASC PACIFIC INC. OR APPROVED EQUAL. SPOT WELD TO ANGLE FRAME (CONTRACTOR TO SUBMIT SHOP DRAWINGS).
10. 9-INCH X 1/2-INCH GALVANIZED STEEL DIAGONAL CROSS BRACE / FILLET WELD TO FRAME AND SPOT WELD TO MINI-V-BEAM (AT BACK OF GATE).
11. HEAVY DUTY DROP CRANE BOLT. ATTACH TO GATE FRAME. SET 1-6 INCHES LONG X 1-INCH O.D. GALVANIZED PIPE SLEEVE TO ACCEPT BOLT. "STANLY" CD 10009-18 INCHES OR APPROVED EQUAL.
12. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.
13. 6-INCH THICK PCC CONCRETE PAD WITH 6 X 6 X 10 WWM.
14. METAL ROOF; CORRUGATED STEEL - BERRIDGE LEAD-COPE STRAIGHT S-DECK / INSTALL PER MANUFACTURERS SPECIFICATIONS.
15. 8-INCH X 2-INCH X 16-INCH CMU CAP TO MATCH WALL COLOR.
16. DISABLED ACCESSIBLE RAMP AND HANDRAIL IF REQUIRED.
17. CONCRETE CURB

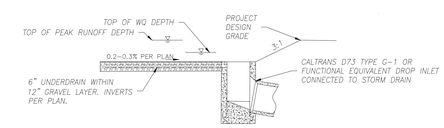
NOTES:
A. CONCRETE FOOTING TO ACHIEVE 4300 PSI @ 28 DAYS.
B. TRASH BINS - SIZE AND NUMBER AS REQUIRED BY CITY.



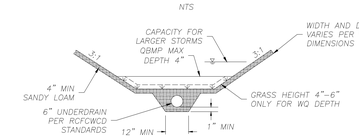
DETAIL "A" - CURB FACE OPENING
NTS



DETAIL "B" - RIP-RAP PAD
NTS



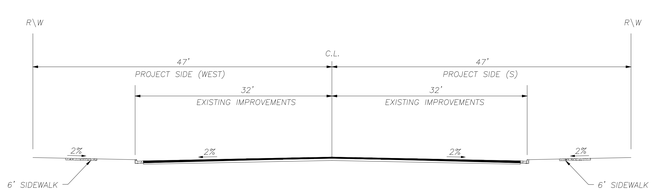
BIO-SWALE END DRAIN DETAIL
NTS



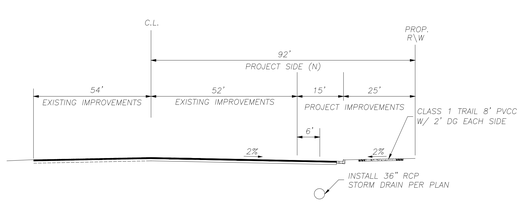
BIO-SWALE SECTION
NTS

LEGEND/ABBREVIATION

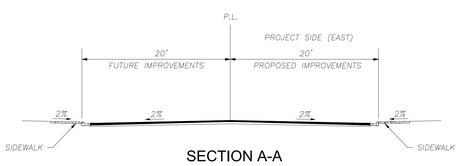
CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	℄	PROPERTY LINE
GB	GRADE BREAK	PED.	PEDESTRIAN
HP	HIGH POINT	TYP.	TYPICAL
INV	INVERT		EXISTING FIRE HYDRANT
LP	LOW POINT		WATER VALVE
R/W	RIGHT-OF-WAY	W	WATER METER
P=XX.X	PAD ELEVATION		STREET LIGHT
FF=XX.X	FINISH FLOOR ELEVATION		PROPOSED STORM DRAIN LINE
2%	DIRECTION OF DRAINAGE/GRADE	1425	EXISTING CONTOUR



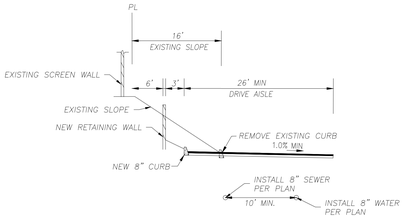
WEBSTER AVE.
SECONDARY ARTERIAL
N.T.S.



RAMONA EXPRESSWAY - LOOKING WEST
N.T.S.



SECTION A-A
SHARED PROJECT ACCESS
NTS



SECTION B-B
N.T.S.

FLOOD PLAIN NOTE:

THE SUBJECT PARCEL IS IN ZONE X PER THE FLOOD INSURANCE RATE MAP (FIRM).

MAP NO. 06065C1430H EFFECTIVE 8/18/14 AND MAP NO. 06065C1410G EFFECTIVE 8/28/08.

LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.71'	N86°54'01"E
L2	31.91'	N89°26'31"W
L3	101.23'	N45°32'41"E

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C1	1592.00'	140.15'	5°02'38"

PREPARED FOR:

OPTIMUS BUILDING CORPORATION (OBC)
c/o MIKE NAGGAR
445 S. D STREET
PERRIS, CA 92570

BGR NO. _____ WDID:

DIGALERT — DIAL BEFORE YOU DIG / TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.
THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE
				CITY	

ENGINEER
DESIGN BY: DRAWN BY: CHECKED BY:

CITY OF PERRIS
APPROVED BY:
CITY ENGINEER DATE

SEAL-ENGINEER: REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER F. LENZ — NO. 63001 — EXP. 6/30/24 — CIVIL — STATE OF CALIFORNIA

ueg — united engineering group
8885 Haven Avenue - Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.unitedeng.com

PREPARED UNDER THE DIRECTION OF:
CHRISTOPHER F. LENZ 63001
DATE: _____ REGISTRATION EXPIRES 6-30-24

BENCH MARK:
NGS DATA POINT
DESIGNATION-432:PID-DX5439
3 ½" ALUMINUM DISC STAMPED "BM432" SW CORNER PERRIS BLVD AND RIDER STREET BASE OF STEEL SIGNAL LIGHT, 3.5' X 2.7' CONC BASE ON EAST SIDE SET FLUSH
ELEVATION = 1455.11' NAVD 88

SCALE
FIELD BOOK
DESIGN
DRAWN
CHECKED

ZONING CASE #DPR __-_____ SPA __-_____
PERRIS CA, 92571
COUNTY OF RIVERSIDE

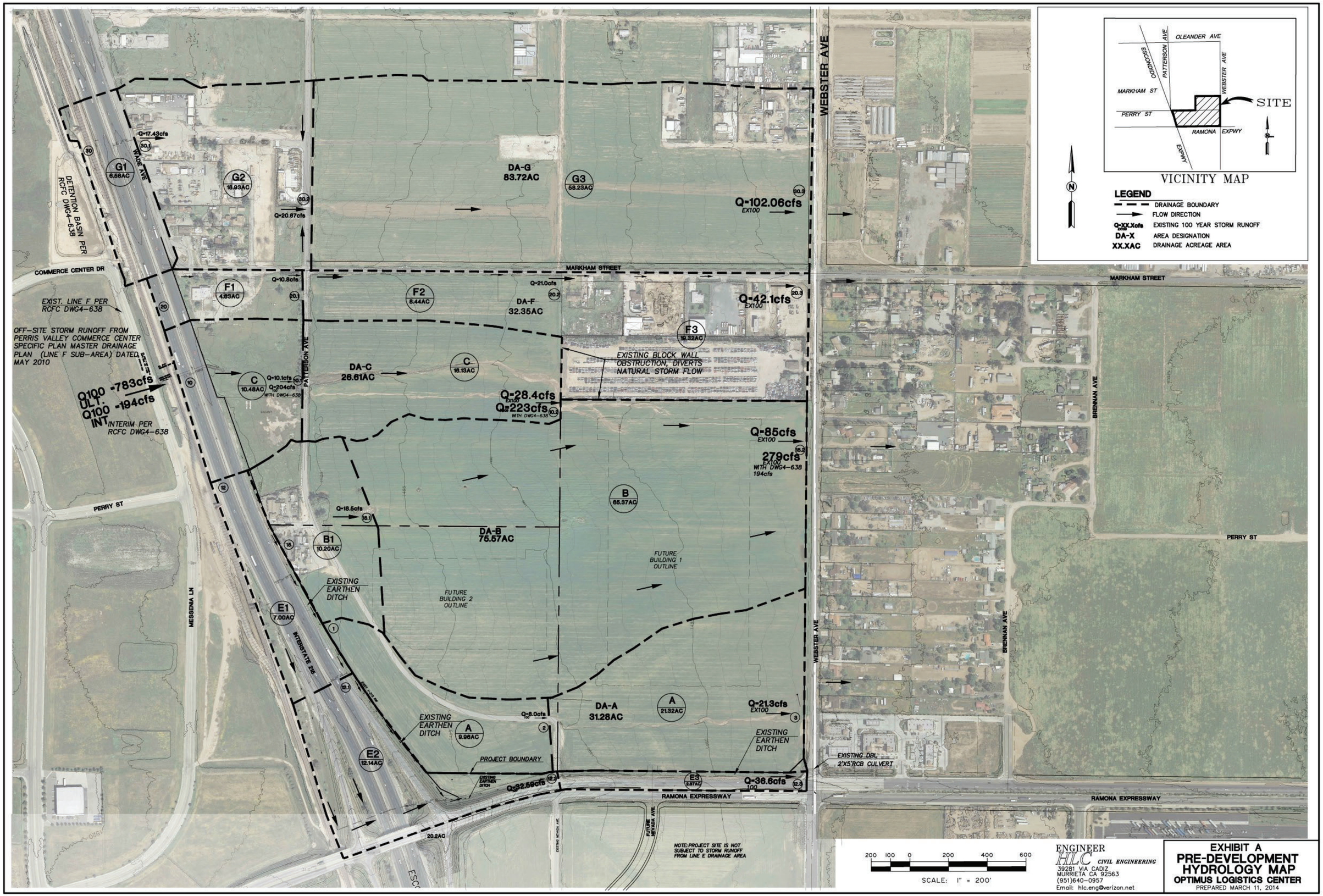
PRELIMINARY GRADING & DRAINAGE PLAN
PERRIS GATEWAY - PHASE II
DRAINAGE - PROPOSED CONDITION

FOR: OPTIMUS BUILDING CORP. | W.O. | CITY FILE NO. DPR __-_____

SHEET NO. __ OF 1 SHEETS

FIGURE 3

Offsite Exhibit – Optimus Logistics Center


VICINITY MAP
OLEANDER AVE
ESCONDIDO
PATTERSON AVE
WEBSTER AVE
MARKHAM ST
PERRY ST
RAMONA EXPWY
SITE
LEGEND
DRAINAGE BOUNDARY
FLOW DIRECTION
Q-XX.Xcfs EXISTING 100 YEAR STORM RUNOFF
DA-X AREA DESIGNATION
XX.XAC DRAINAGE ACREAGE AREA
DETENTION BASIN PER RCFC DWG4-638
WADE AVE
COMMERCE CENTER DR
EXIST. LINE F PER RCFC DWG4-638
OFF-SITE STORM RUNOFF FROM PERRIS VALLEY COMMERCE CENTER SPECIFIC PLAN MASTER DRAINAGE PLAN (LINE F SUB-AREA) DATED MAY 2010
Q100 ULT. -783cfs
Q100 INT -194cfs
INTERIM PER RCFC DWG4-638
MARKHAM STREET
DA-G 83.72AC
G1 6.56AC
G2 16.93AC
G3 58.23AC
Q-17.43cfs
Q-20.67cfs
Q-102.06cfs EX100
F1 4.83AC
F2 8.44AC
F3 19.32AC
DA-F 32.35AC
Q-10.8cfs
Q-21.0cfs
Q-42.1cfs EX100
EXISTING BLOCK WALL OBSTRUCTION, DIVERTS NATURAL STORM FLOW
DA-C 26.61AC
C 16.13AC
C 10.48AC
Q-10.1cfs
Q-204cfs WITH DWG4-638
Q-28.4cfs EX100
Q-223cfs WITH DWG4-638
Q-85cfs EX100
279cfs EX100 WITH DWG4-638 194cfs
B 65.37AC
DA-B 75.57AC
Q-18.5cfs
B1 10.20AC
FUTURE BUILDING 1 OUTLINE
FUTURE BUILDING 2 OUTLINE
EXISTING EARTHEN DITCH
E1 7.00AC
E2 12.14AC
INTERSTATE 215
MESSENIA LN
PERRY ST
BRENNAN AVE
DA-A 31.28AC
A 21.32AC
A 9.96AC
Q-8.0cfs
Q-21.3cfs EX100
PROJECT BOUNDARY
Q-32.59cfs
E3 2.87AC
Q-36.6cfs 100
EXISTING DBL 2'X5' RCB CULVERT
RAMONA EXPRESSWAY
20.2AC
FUTURE NEVADA AVE
NOTE: PROJECT SITE IS NOT SUBJECT TO STORM RUNOFF FROM LINE E DRAINAGE AREA
SCALE: 1" = 200'
ENGINEER
HLC CIVIL ENGINEERING
39281 VIA CADIZ
MURRIETA CA 92563
(951)640-0957
Email: hlc.eng@verizon.net
EXHIBIT A
PRE-DEVELOPMENT HYDROLOGY MAP
OPTIMUS LOGISTICS CENTER
PREPARED MARCH 11, 2014

Perris Gateway

NOISE AND VIBRATION ANALYSIS

CITY OF PERRIS

PREPARED BY:

Bill Lawson, PE, INCE
blawson@urbanxroads.com
(949) 584-3148

AUGUST 16, 2023

15495-04 NA

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
LUCP	Land Use Compatibility Plan
MARB/IPA	March Air Reserve Base/Inland Port Airport
mph	Miles per hour
OPR	Office of Planning and Research
PVCCSP	Perris Valley Commerce Center Specific Plan
PPV	Peak particle velocity
Project	Perris Gateway
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Perris Gateway development ("Project"). The proposed Project consists of 12,000 square feet of sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of storage building use. The proposed Project is located within the Perris Valley Commerce Center Specific Plan (PVCCSP) planning area of the City of Perris. This study has been prepared to satisfy applicable City of Perris standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (State CEQA Guidelines). (1)

The results of this Perris Gateway Noise and Vibration Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Significance Findings	
	Unmitigated	Mitigated
Off-Site Traffic Noise	*Less Than Significant*	-
Operational Noise	*Less Than Significant*	-
Construction Noise	*Less Than Significant*	-
Nighttime Concrete Pour	*Less Than Significant*	-
Construction Vibration	*Less Than Significant*	-

[1] Although Project construction noise and vibration impacts will be less than significant, the Project is required to comply with mitigation measures (MM) Noise 1 through MM Noise 4 from the PVCC Specific Plan Environmental Impact Report.

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Perris Gateway ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed Perris Gateway site is located on the northbound side of the 215 Freeway and Ramona Expressway within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCCSP) planning area as shown on Exhibit 1-A. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located less than one mile north of the Project site.

1.2 PROJECT DESCRIPTION

The proposed Project consists of 12,000 square feet of sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of storage building use. A preliminary site plan is shown on Exhibit 1-B. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: SITE PLAN

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2 FUNDAMENTALS

For consistency with the PVCCSP EIR, the following noise fundamentals discussion was taken from the EIR, Section 4.9 Noise, Page 4.9-2: (2)

The PVCCSP EIR defines noise *as unwanted or objectionable sound. The effect of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment. The unit of measurement used to describe a noise level is the decibel (dB). However, since the human ear is not equally sensitive to all frequencies within the sound spectrum, the "A-weighted" noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are written dB(A) or dBA. Decibels are measured on a logarithmic scale which quantifies sound intensity in a manner that is similar to the Richter scale used for earthquake magnitudes. In the case of noise, a doubling of the energy from a noise source, such as the doubling of a traffic volume, would increase the noise level by 3 dBA; a halving of the energy would result in a 3 dBA decrease.*

The PVCCSP EIR further states that *average noise levels over a period of minutes or hours are usually expressed as dB* L_{eq} *or the equivalent noise level for that period of time. For example,* $L_{eq(3)}$ *would represent a three hour average. When no time-period is specified, a one-hour average is assumed. Noise standards for land use compatibility are stated in terms of the Community Noise Equivalent Level (CNEL) and the Day-Night Average Noise Level (Ldn). CNEL is a 24-hour weighted average measure of community noise. The computation of CNEL adds 5 dBA to the average hourly noise levels between 7 p.m. and 10 p.m. (evening hours), and 10 dBA to the average hourly noise levels between 10p.m. to 7 a.m. (nighttime hours). This weighting accounts for the increased human sensitivity to noise in the evening and nighttime hours. Ldn is a very similar 24-hour weighted average which weighs only the nighttime hours and not the evening hours. CNEL is normally about 1 dB higher than Ldn for typical traffic and other community noise levels.*

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3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (3) The purpose of the Noise and Safety Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The State of California's Green Building Standards Code (CALGreen) contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (4) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level of 50 dBA L_{eq} in occupied areas during any hour of operation (Section 5.507.4.2). As outlined below in Section 3.7, the Project is not located within the 65 CNEL noise contour of March Air Reserve Base/Inland Port Airport (MARB/IPA).

3.3 CITY OF PERRIS GENERAL PLAN NOISE ELEMENT

The City of Perris has adopted a Noise Element of the General Plan (5) to control and abate environmental noise, and to protect the citizens of Perris from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways,

airports, and railroads. In addition, the Noise Element identifies noise polices and implementation measures designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

The noise standards identified in the City of Perris General Plan are guidelines to evaluate the acceptability of the transportation related noise level impacts. These standards are based on the Governor's Office of Planning and Research (OPR) and are used to assess the long-term traffic noise impacts on land use. According to the City's Land Use Compatibility for Community Noise Exposure (Exhibit N-1), noise-sensitive land uses such as single-family residences are *normally acceptable* with exterior noise levels below 60 dBA CNEL and *conditionally acceptable* with noise levels below 65 dBA CNEL. Commercial uses are *normally acceptable* with exterior noise levels below 65 dBA CNEL and *conditionally acceptable* with noise levels below 75 dBA CNEL and *normally unacceptable* with exterior noise level above 75 dBA CNEL. Industrial uses are considered *normally acceptable* with exterior noise levels of up to 70 dBA CNEL, and *conditionally acceptable* with exterior noise levels between 70 to 80 dBA CNEL. (5)

3.4 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Perris Gateway, operational noise such as the expected storage activity, roof-top air conditioning units, courtyard activity, drive-through speakerphones, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuums and gas station activity are typically evaluated against standards established under a City's Municipal Code.

The City of Perris Municipal Code, Chapter 7.34 *Noise Control*, Section 7.34.040, establishes the permissible noise level at any point on the property line of the affected residential receivers. Therefore, for residential properties, the exterior noise level shall not exceed a maximum noise level of 80 dBA L_{max} during daytime hours (7:01 a.m. to 10:00 p.m.) and shall not exceed a maximum noise level of 60 dBA L_{max} during the nighttime hours (10:01 p.m. to 7:00 a.m.), as shown on Table 3-1. (6) The City of Perris Municipal Code is included in Appendix 3.1. Additional exterior noise level standards are identified in the City of Perris General Plan Noise Element Implementation Measure V.A.1 which requires that new industrial facilities and large-scale commercial facilities within 160 feet of the property line of existing noise-sensitive land uses must demonstrate compliance with a 60 dBA CNEL exterior noise level standard. Table 3-1 shows the Municipal Code and General Plan standards used in this analysis to evaluate the potential operational noise levels from the Project.

TABLE 3-1: OPERATIONAL NOISE STANDARDS

Jurisdiction	Land Use	Time Period	Noise Level Standard (dBA)
City of Perris	Residential[1]	Daytime (7:01 a.m. - 10:00 p.m.)	80 dBA L_{max}
		Nighttime (10:01 p.m. - 7:00 a.m.)	60 dBA L_{max}
	Within 160 Feet of PL[2]	24-Hours	60 dBA CNEL

[1] City of Perris Municipal Code, Sections 7.34.040 & 7.34.050 (Appendix 3.1).
[2] City of Perris General Plan Noise Element, Implementation Measure V.A.1.

3.5 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Perris Gateway site, noise from construction activities is typically evaluated against standards established under a City's Municipal Code. The City of Perris Municipal Code, Section 7.34.060, identifies the City's construction noise standards and permitted hours of construction activity (refer to Table 3-2). The City of Perris Municipal Code, Section 7.34.060, noise level standard of 80 dBA L_{max} applies to residential zones within the City of Perris. (6)

TABLE 3-2: CONSTRUCTION NOISE STANDARDS

Jurisdiction	Permitted Hours of Construction Activity	Construction Noise Level Standard
City of Perris[1]	7:00 a.m. to 7:00 p.m. on any day except Sundays and legal holidays (with the exception of Columbus Day and Washington's birthday).	80 dBA L_{max}

[1] City of Perris Municipal Code, Section 7.34.060 (Appendix 3.1).

3.6 CONSTRUCTION VIBRATION STANDARDS

According to the PVCCSP EIR, a major concern regarding construction vibration is building damage. Consequently, construction vibration is generally assessed in terms of peak particle velocity (PPV). The United States Department of Transportation Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage.

Although Project construction noise and vibration impacts will be *less than significant*, the Project is required to comply with the following construction-related mitigation measures (MM) from the PVCCSP EIR:

MM Noise 1 *During all project site excavation and grading on site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturer's standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.*

MM Noise 2 *During construction, stationary construction equipment, stockpiling and vehicle staging areas would be placed a minimum of 446 feet away from the closest sensitive receptor.*

MM Noise 3 *No combustion-powered equipment, such as pumps or generators, shall be allowed to operate within 446 feet of any occupied residence unless the equipment is surrounded by a noise protection barrier.*

MM Noise 4 *Construction contractors of implementing development projects shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.*

3.7 MARCH AIR RESERVE BASE/INLAND PORT AIRPORT LAND USE COMPATIBILITY

The March Air Reserve Base/Inland Port Airport (MARB/IPA) runway is less than one mile north of the Project site. The *Riverside County Airport Land Use Compatibility Plan Policy Document* (RC ALUCP) includes the policies for determining the land use compatibility of the Project. Policy 4.1.5 *Noise Exposure for Other Land Uses* of the RC ALUCP requires that land uses demonstrate compatibility with the acceptable noise levels on Table 2B. Table 2B *Supporting Compatibility Criteria: Noise* matrix is shown on Exhibit 3-A and indicates that the Project's commercial land uses experience *clearly acceptable* exterior noise levels below 60 dBA CNEL. *Normally acceptable* noise levels for commercial land use range from 60 to 65 dBA CNEL. *Marginally acceptable* noise levels at commercial land uses range from 65 to 70 dBA CNEL. (7)

The 70, 65 and 60 dBA CNEL noise contour boundaries used to determine the potential aircraft-related noise impacts at the Project site are found on Figure 6-9 of the *March Air Reserve Base 2018 Final Air Installations Compatible Uses Zones Study* and are presented on Exhibit 3-B of this report. (8) Based on the 2018 noise level contours for the MARB/IPA, the Project development area is located outside the 60 dBA CNEL noise level contour boundaries and the Project's commercial land use is considered *normally acceptable.*

EXHIBIT 3-A: RC ALUCP SUPPORTING COMPATIBILITY CRITERIA: NOISE

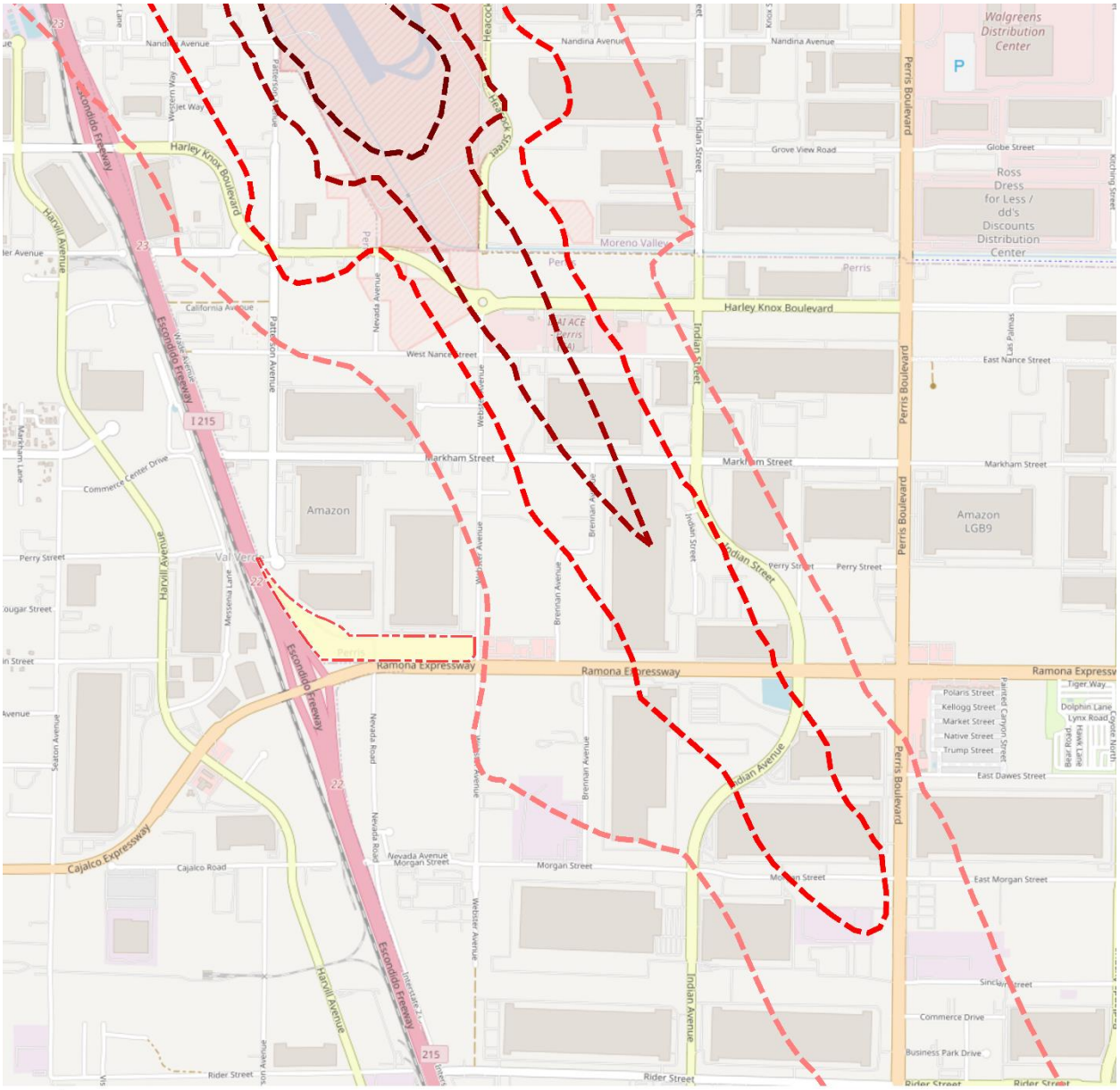
Land Use Category	CNEL (dB) 50–55	55–60	60–65	65–70	70–75
Residential *					
single-family, nursing homes, mobile homes	++	o	–	– –	– –
multi-family, apartments, condominiums	++	+	o	– –	– –
Public					
schools, libraries, hospitals	+	o	–	– –	– –
churches, auditoriums, concert halls	+	o	o	–	– –
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	– –	– –

Land Use Acceptability		Interpretation/Comments
++	*Clearly Acceptable*	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	*Normally Acceptable*	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	*Marginally Acceptable*	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	*Normally Unacceptable*	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
– –	*Clearly Unacceptable*	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

* Subtract 5 dB for low-activity outlying airports (Chiriaco Summit and Desert Center)

Source: Riverside County Airport Land Use Compatibility Plan, Table 2B.

EXHIBIT 3-B: MARB/IPA FUTURE AIRPORT NOISE CONTOURS



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Project Site Boundary

Unmitigated MARB Noise Level Contour Boundaries

75 dBA CNEL

65 dBA CNEL

70 dBA CNEL

60 dBA CNEL

Source: Figure 6-9 of the March Air Reserve Base 2018 Final Air Installations Compatible Uses Zones Study.

4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

B. Generation of excessive ground-borne vibration or ground-borne noise levels?

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

While the City of Perris General Plan Noise Element provides direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, it does not define the levels at which increases are considered substantial for use under Guideline A. The CEQA Guidelines Appendix G Noise Guideline C applies to nearest public and private airports, if any, and the Project's land use compatibility.

4.1 CEQA THRESHOLDS NOT FURTHER ANALYZED

The closest airport which would require additional noise analysis under CEQA Appendix G Guideline C is the MARB/IPA. As previously indicated in Section 3.7, the noise contour boundaries of MARB/IPA presented on Exhibit 3-B of this report show that the Project's commercial land use is considered *normally acceptable* since the development area is located outside the 60 dBA CNEL contour. Therefore, the Project impacts are considered *less than significant,* and no further noise analysis is provided under CEQA Significance Criteria C.

4.2 NOISE SENSITIVE USE NOISE LEVEL INCREASES

As identified in the PVCCSP EIR, sensitive receivers are areas where humans are participating in activities that may be subject to the stress of significant interference from noise and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Other receivers include office and industrial buildings, which are not considered as sensitive as single-family homes, but are still protected by City of Perris land use compatibility standards, as discussed below. Noise level increases at nearest receiver locations resulting from the Project are evaluated based on the PVCCSP EIR Thresholds described below at nearest sensitive receiver locations. Further, CEQA requires that consideration be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (9)

According to the PVCCSP EIR, *there is no official "industry standard" of determining significance of noise impacts. However, typically, a jurisdiction will identify either 3 dBA or 5 dBA increase as being the threshold because these levels represent varying levels of perceived noise increases.* The PVCCSP EIR indicates that a 5 dBA noise level increase is considered *discernable to most people in an exterior environment* when the resulting noise levels are below 60 dBA. Further, it identifies a 3 dBA increase threshold when the noise levels already exceed 60 dBA. In addition, according to the PVCCSP EIR, an increase of 5 dBA or more above without Project noise levels is considered a significant impact at all other sensitive land uses. (2) The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.

4.3 SIGNIFICANCE CRITERIA SUMMARY

Even though Section 7.34.060 of the Municipal Code limits the use of the 80 dBA L_{max} standard to residential properties, the same 80 dBA L_{max} exterior noise level standard has been used to assess the potential noise level impacts at the Val Verde Regional Learning Center and Val Verde High School facilities. Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic	Noise-Sensitive[1]	if resulting noise level is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if resulting noise level is > 60 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive[3]	At residential land use[2]	80 dBA L_{max}	60 dBA L_{max}
		within 160 Feet of noise-sensitive use[3]	60 dBA CNEL (exterior)	
		if resulting noise level is < 60 dBA L_{eq}[1]	≥ 5 dBA L_{eq} Project increase	
		if resulting noise level is > 60 dBA L_{eq}[1]	≥ 3 dBA L_{eq} Project increase	
Construction	Noise-Sensitive	At residential land use[4]	80 dBA L_{max}	
		Vibration Level Threshold[5]	0.5 PPV (in/sec)	

[1] PVCC SP EIR, Page 4.9-20.
[2] City of Perris Municipal Code, Section 7.34.040 (Appendix 3.1).
[3] City of Perris General Plan Noise Element, Implementation Measure V.A.1.
[4] City of Perris Municipal Code, Section 7.34.060 (Appendix 3.1).
[5] PVCC SP EIR, Page 4.9-27.
"Daytime" = 7:01 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:00 a.m.

5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, May 17th, 2023. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (10)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (11) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (12)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (12) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the equivalent or the energy average hourly sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels.

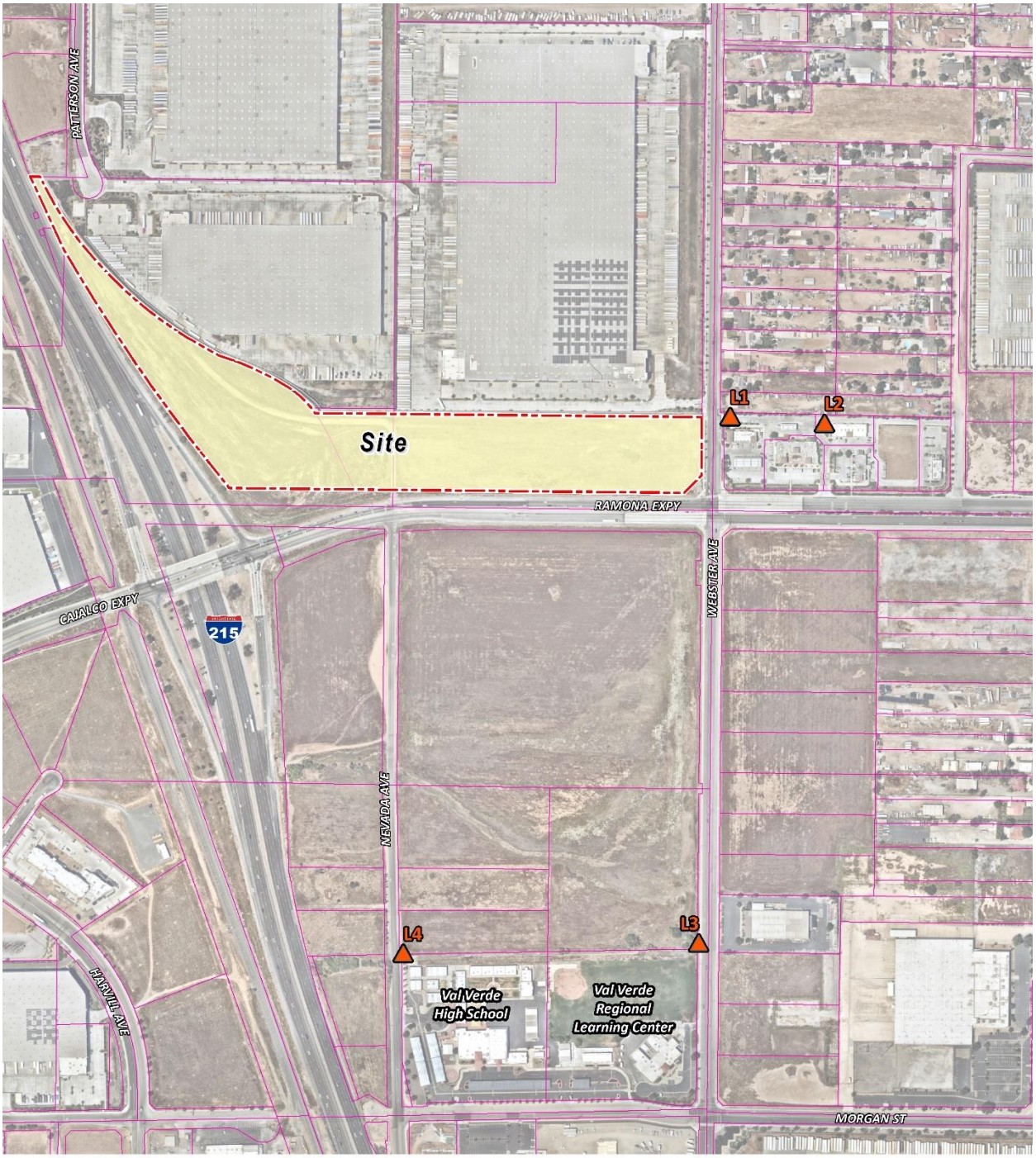
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	Nighttime
L1	Located east of the site near the residence at 4063 Webster Ave.	68.9	64.4
L2	Located east of the site near the commercial building at 764 Ramona Expy.	63.8	59.5
L3	Located south of the site near the educational facility at 3710 Webster Ave.	62.8	62.1
L4	Located south of the site near the Val Verde High School at 972 Morgan St.	69.3	63.2

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.
"Daytime" = 7:01 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:00 a.m.

Table 5-1 provides the energy average noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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Site Boundary

Measurement Locations

Parcel Boundary

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6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the *Land Use Compatibility Criteria*, all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (13) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (14) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (15)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 6-1 identifies the 18 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Perris General Plan Circulation Element, and the posted vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on the *Perris Gateway Traffic Impact Analysis*, prepared by Urban Crossroads, Inc. for the following traffic scenarios (16):

- Existing (2023)
- Existing Plus Project
- Existing Plus Ambient Growth Plus Cumulative (EAC) (2026)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (EAPC) (2026)

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts at the boundary of the right-of-way of the receiving adjacent land use, without and with project ADT traffic volumes from the Project traffic study. Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. Table 6-4 shows the typical traffic flow by vehicle type (vehicle mix). The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Classification[1]	Receiving Land Use[2]	Distance from Centerline to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
1	Webster Av.	n/o Ramona Expy.	Secondary Arterial	Sensitive	47'	35
2	Webster Av.	s/o Ramona Expy.	Secondary Arterial	Sensitive	47'	35
3	Indian Av.	n/o Ramona Expy.	Secondary Arterial	Non-Sensitive	47'	40
4	Indian Av.	s/o Ramona Expy.	Secondary Arterial	Non-Sensitive	47'	40
5	Perris Blvd.	n/o Ramona Expy.	Arterial	Non-Sensitive	64'	45
6	Perris Blvd.	s/o Ramona Expy.	Arterial	Sensitive	64'	45
7	Redlands Av.	n/o Ramona Expy.	Secondary Arterial	Non-Sensitive	47'	45
8	Redlands Av.	s/o Ramona Expy.	Secondary Arterial	Sensitive	47'	45
9	Evans Rd.	n/o Ramona Expy.	Arterial	Sensitive	64'	45
10	Evans Rd.	s/o Ramona Expy.	Arterial	Sensitive	64'	45
11	Ramona Expy.	w/o I-215 SB Ramps	Expressway	Non-Sensitive	92'	50
12	Ramona Expy.	w/o Nevada Av.	Expressway	Non-Sensitive	92'	50
13	Ramona Expy.	w/o Webster Av.	Expressway	Non-Sensitive	92'	50
14	Ramona Expy.	e/o Webster Av.	Expressway	Non-Sensitive	92'	50
15	Ramona Expy.	w/o Perris Blvd.	Expressway	Non-Sensitive	92'	55
16	Ramona Expy.	w/o Redlands Av.	Expressway	Sensitive	92'	55
17	Ramona Expy.	w/o Evans Rd.	Expressway	Sensitive	92'	55
18	Ramona Expy.	e/o Evans Rd.	Expressway	Sensitive	92'	55

[1] Perris Gateway Traffic Analysis, Urban Crossroads, Inc.
[2] Based on a review of existing aerial imagery.
[3] Distance to receiving land use is based upon the right-of-way distances.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]			
			Existing		EAC (2026)	
			Without Project	With Project	Without Project	With Project
1	Webster Av.	n/o Ramona Expy.	7,162	7,954	8,395	9,187
2	Webster Av.	s/o Ramona Expy.	3,879	4,455	6,286	6,862
3	Indian Av.	n/o Ramona Expy.	9,505	9,936	12,255	12,687
4	Indian Av.	s/o Ramona Expy.	8,260	8,692	10,324	10,756
5	Perris Blvd.	n/o Ramona Expy.	31,084	31,947	43,544	44,408
6	Perris Blvd.	s/o Ramona Expy.	24,974	25,837	32,084	32,948
7	Redlands Av.	n/o Ramona Expy.	9,860	10,004	19,786	19,930
8	Redlands Av.	s/o Ramona Expy.	6,999	7,287	13,627	13,915
9	Evans Rd.	n/o Ramona Expy.	34,349	34,781	51,067	51,500
10	Evans Rd.	s/o Ramona Expy.	23,002	23,433	57,290	57,723
11	Ramona Expy.	w/o I-215 SB Ramps	35,108	35,828	63,332	64,052
12	Ramona Expy.	w/o Nevada Av.	46,795	54,712	92,796	100,714
13	Ramona Expy.	w/o Webster Av.	44,715	49,034	92,982	97,301
14	Ramona Expy.	e/o Webster Av.	40,620	45,083	105,291	109,754
15	Ramona Expy.	w/o Perris Blvd.	39,748	43,346	104,026	107,625
16	Ramona Expy.	w/o Redlands Av.	40,701	42,573	103,822	105,694
17	Ramona Expy.	w/o Evans Rd.	43,336	44,776	108,108	109,549
18	Ramona Expy.	e/o Evans Rd.	32,425	33,001	98,958	99,534

[1] Perris Gateway Traffic Analysis, Urban Crossroads, Inc.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	65.05%	11.63%	23.32%	100.00%
Medium Trucks	72.58%	6.20%	21.21%	100.00%
Heavy Trucks	65.44%	11.48%	23.08%	100.00%

[1] Based on a 24-hour count taken on Ramona Expressway west of Webster Avenue (Perris Gateway Traffic Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: TYPICAL VEHICLE MIX

Classification	Total % Traffic Flow[1]			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	87.48%	7.11%	5.42%	100.00%

[1] Based on a 24-hour count taken on Ramona Expressway west of Webster Avenue (Perris Gateway Traffic Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

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7 OFF-SITE TRAFFIC NOISE ANALYSIS

To assess the off-site transportation CNEL noise level impacts associated with the development of the proposed Project, noise contours were developed based on the *Perris Gateway Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (16) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-4 present a summary of the exterior dBA CNEL traffic noise levels for each traffic condition. Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contour worksheets for each of the traffic conditions.

TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Webster Av.	n/o Ramona Expy.	Sensitive	70.7	53	113	244
2	Webster Av.	s/o Ramona Expy.	Sensitive	68.1	35	75	162
3	Indian Av.	n/o Ramona Expy.	Non-Sensitive	73.1	75	162	349
4	Indian Av.	s/o Ramona Expy.	Non-Sensitive	72.5	68	148	318
5	Perris Blvd.	n/o Ramona Expy.	Non-Sensitive	77.4	199	429	924
6	Perris Blvd.	s/o Ramona Expy.	Sensitive	76.4	172	371	799
7	Redlands Av.	n/o Ramona Expy.	Non-Sensitive	74.2	90	194	417
8	Redlands Av.	s/o Ramona Expy.	Sensitive	72.7	72	154	332
9	Evans Rd.	n/o Ramona Expy.	Sensitive	77.8	213	459	988
10	Evans Rd.	s/o Ramona Expy.	Sensitive	76.1	163	351	756
11	Ramona Expy.	w/o I-215 SB Ramps	Non-Sensitive	76.8	263	566	1220
12	Ramona Expy.	w/o Nevada Av.	Non-Sensitive	78.1	318	686	1478
13	Ramona Expy.	w/o Webster Av.	Non-Sensitive	77.9	309	666	1434
14	Ramona Expy.	e/o Webster Av.	Non-Sensitive	77.5	290	624	1345
15	Ramona Expy.	w/o Perris Blvd.	Non-Sensitive	78.2	325	700	1508
16	Ramona Expy.	w/o Redlands Av.	Sensitive	78.3	330	711	1532
17	Ramona Expy.	w/o Evans Rd.	Sensitive	78.6	344	742	1598
18	Ramona Expy.	e/o Evans Rd.	Sensitive	77.3	284	611	1317

[1] Based on a review of existing aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Webster Av.	n/o Ramona Expy.	Sensitive	70.8	53	115	248
2	Webster Av.	s/o Ramona Expy.	Sensitive	68.2	36	77	165
3	Indian Av.	n/o Ramona Expy.	Non-Sensitive	73.1	76	163	352
4	Indian Av.	s/o Ramona Expy.	Non-Sensitive	72.5	69	149	321
5	Perris Blvd.	n/o Ramona Expy.	Non-Sensitive	77.4	200	431	929
6	Perris Blvd.	s/o Ramona Expy.	Sensitive	76.5	173	373	804
7	Redlands Av.	n/o Ramona Expy.	Non-Sensitive	74.2	90	194	418
8	Redlands Av.	s/o Ramona Expy.	Sensitive	72.8	72	155	334
9	Evans Rd.	n/o Ramona Expy.	Sensitive	77.8	213	460	990
10	Evans Rd.	s/o Ramona Expy.	Sensitive	76.1	163	352	759
11	Ramona Expy.	w/o I-215 SB Ramps	Non-Sensitive	76.9	264	569	1225
12	Ramona Expy.	w/o Nevada Av.	Non-Sensitive	78.3	329	708	1526
13	Ramona Expy.	w/o Webster Av.	Non-Sensitive	78.0	315	678	1461
14	Ramona Expy.	e/o Webster Av.	Non-Sensitive	77.6	296	638	1373
15	Ramona Expy.	w/o Perris Blvd.	Non-Sensitive	78.3	331	713	1537
16	Ramona Expy.	w/o Redlands Av.	Sensitive	78.4	333	718	1547
17	Ramona Expy.	w/o Evans Rd.	Sensitive	78.6	347	747	1609
18	Ramona Expy.	e/o Evans Rd.	Sensitive	77.4	285	613	1322

[1] Based on a review of existing aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: EAC (2026) WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Webster Av.	n/o Ramona Expy.	Sensitive	71.4	58	126	271
2	Webster Av.	s/o Ramona Expy.	Sensitive	70.2	48	104	223
3	Indian Av.	n/o Ramona Expy.	Non-Sensitive	74.2	89	192	413
4	Indian Av.	s/o Ramona Expy.	Non-Sensitive	73.4	79	171	369
5	Perris Blvd.	n/o Ramona Expy.	Non-Sensitive	78.9	249	537	1157
6	Perris Blvd.	s/o Ramona Expy.	Sensitive	77.5	203	438	944
7	Redlands Av.	n/o Ramona Expy.	Non-Sensitive	77.2	143	308	664
8	Redlands Av.	s/o Ramona Expy.	Sensitive	75.6	112	240	518
9	Evans Rd.	n/o Ramona Expy.	Sensitive	79.6	277	597	1287
10	Evans Rd.	s/o Ramona Expy.	Sensitive	80.1	299	645	1390
11	Ramona Expy.	w/o I-215 SB Ramps	Non-Sensitive	79.4	390	839	1808
12	Ramona Expy.	w/o Nevada Av.	Non-Sensitive	81.1	503	1083	2333
13	Ramona Expy.	w/o Webster Av.	Non-Sensitive	81.1	503	1084	2336
14	Ramona Expy.	e/o Webster Av.	Non-Sensitive	81.6	547	1178	2538
15	Ramona Expy.	w/o Perris Blvd.	Non-Sensitive	82.4	617	1330	2864
16	Ramona Expy.	w/o Redlands Av.	Sensitive	82.4	616	1328	2861
17	Ramona Expy.	w/o Evans Rd.	Sensitive	82.6	633	1364	2939
18	Ramona Expy.	e/o Evans Rd.	Sensitive	82.2	597	1286	2771

[1] Based on a review of existing aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: EAPC (2026) WITH PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Webster Av.	n/o Ramona Expy.	Sensitive	71.5	59	127	275
2	Webster Av.	s/o Ramona Expy.	Sensitive	70.2	49	105	226
3	Indian Av.	n/o Ramona Expy.	Non-Sensitive	74.2	90	193	416
4	Indian Av.	s/o Ramona Expy.	Non-Sensitive	73.5	80	172	371
5	Perris Blvd.	n/o Ramona Expy.	Non-Sensitive	78.9	250	539	1161
6	Perris Blvd.	s/o Ramona Expy.	Sensitive	77.6	204	440	949
7	Redlands Av.	n/o Ramona Expy.	Non-Sensitive	77.3	143	308	665
8	Redlands Av.	s/o Ramona Expy.	Sensitive	75.7	112	241	520
9	Evans Rd.	n/o Ramona Expy.	Sensitive	79.6	278	598	1289
10	Evans Rd.	s/o Ramona Expy.	Sensitive	80.1	300	646	1392
11	Ramona Expy.	w/o I-215 SB Ramps	Non-Sensitive	79.4	390	841	1812
12	Ramona Expy.	w/o Nevada Av.	Non-Sensitive	81.2	511	1101	2371
13	Ramona Expy.	w/o Webster Av.	Non-Sensitive	81.1	508	1094	2357
14	Ramona Expy.	e/o Webster Av.	Non-Sensitive	81.7	551	1188	2559
15	Ramona Expy.	w/o Perris Blvd.	Non-Sensitive	82.4	622	1339	2885
16	Ramona Expy.	w/o Redlands Av.	Sensitive	82.4	619	1333	2871
17	Ramona Expy.	w/o Evans Rd.	Sensitive	82.6	635	1368	2947
18	Ramona Expy.	e/o Evans Rd.	Sensitive	82.2	598	1288	2774

[1] Based on a review of existing aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in the *Perris Gateway Traffic Analysis*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 68.1 to 78.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 68.2 to 78.6 dBA CNEL. Table 7-5 shows that the Project off-site traffic noise level impacts will range from 0.0 to 0.2 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

7.3 EAC (2026) TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Existing plus Ambient plus Cumulative (2026) without Project conditions CNEL noise levels. The EAC (2026) without Project exterior noise levels are expected to range from 70.2 to 82.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the EAC (2026) with Project conditions will range from 70.2 to 82.6 dBA CNEL. Table 7-6 shows that the Project off-site traffic noise level increases will range from 0.0 to 0.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

TABLE 7-5: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Webster Av.	n/o Ramona Expy.	Sensitive	70.7	70.8	0.1	3	No
2	Webster Av.	s/o Ramona Expy.	Sensitive	68.1	68.2	0.1	3	No
3	Indian Av.	n/o Ramona Expy.	Non-Sensitive	73.1	73.1	0.0	n/a	No
4	Indian Av.	s/o Ramona Expy.	Non-Sensitive	72.5	72.5	0.0	n/a	No
5	Perris Blvd.	n/o Ramona Expy.	Non-Sensitive	77.4	77.4	0.0	n/a	No
6	Perris Blvd.	s/o Ramona Expy.	Sensitive	76.4	76.5	0.1	3	No
7	Redlands Av.	n/o Ramona Expy.	Non-Sensitive	74.2	74.2	0.0	n/a	No
8	Redlands Av.	s/o Ramona Expy.	Sensitive	72.7	72.8	0.1	3	No
9	Evans Rd.	n/o Ramona Expy.	Sensitive	77.8	77.8	0.0	3	No
10	Evans Rd.	s/o Ramona Expy.	Sensitive	76.1	76.1	0.0	3	No
11	Ramona Expy.	w/o I-215 SB Ramps	Non-Sensitive	76.8	76.9	0.1	n/a	No
12	Ramona Expy.	w/o Nevada Av.	Non-Sensitive	78.1	78.3	0.2	n/a	No
13	Ramona Expy.	w/o Webster Av.	Non-Sensitive	77.9	78.0	0.1	n/a	No
14	Ramona Expy.	e/o Webster Av.	Non-Sensitive	77.5	77.6	0.1	n/a	No
15	Ramona Expy.	w/o Perris Blvd.	Non-Sensitive	78.2	78.3	0.1	n/a	No
16	Ramona Expy.	w/o Redlands Av.	Sensitive	78.3	78.4	0.1	3	No
17	Ramona Expy.	w/o Evans Rd.	Sensitive	78.6	78.6	0.0	3	No
18	Ramona Expy.	e/o Evans Rd.	Sensitive	77.3	77.4	0.1	3	No

[1] Based on a review of existing aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-6: EAC (2026) WITH PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Webster Av.	n/o Ramona Expy.	Sensitive	71.4	71.5	0.1	3	No
2	Webster Av.	s/o Ramona Expy.	Sensitive	70.2	70.2	0.0	3	No
3	Indian Av.	n/o Ramona Expy.	Non-Sensitive	74.2	74.2	0.0	n/a	No
4	Indian Av.	s/o Ramona Expy.	Non-Sensitive	73.4	73.5	0.1	n/a	No
5	Perris Blvd.	n/o Ramona Expy.	Non-Sensitive	78.9	78.9	0.0	n/a	No
6	Perris Blvd.	s/o Ramona Expy.	Sensitive	77.5	77.6	0.1	3	No
7	Redlands Av.	n/o Ramona Expy.	Non-Sensitive	77.2	77.3	0.1	n/a	No
8	Redlands Av.	s/o Ramona Expy.	Sensitive	75.6	75.7	0.1	3	No
9	Evans Rd.	n/o Ramona Expy.	Sensitive	79.6	79.6	0.0	3	No
10	Evans Rd.	s/o Ramona Expy.	Sensitive	80.1	80.1	0.0	3	No
11	Ramona Expy.	w/o I-215 SB Ramps	Non-Sensitive	79.4	79.4	0.0	n/a	No
12	Ramona Expy.	w/o Nevada Av.	Non-Sensitive	81.1	81.2	0.1	n/a	No
13	Ramona Expy.	w/o Webster Av.	Non-Sensitive	81.1	81.1	0.0	n/a	No
14	Ramona Expy.	e/o Webster Av.	Non-Sensitive	81.6	81.7	0.1	n/a	No
15	Ramona Expy.	w/o Perris Blvd.	Non-Sensitive	82.4	82.4	0.0	n/a	No
16	Ramona Expy.	w/o Redlands Av.	Sensitive	82.4	82.4	0.0	3	No
17	Ramona Expy.	w/o Evans Rd.	Sensitive	82.6	82.6	0.0	3	No
18	Ramona Expy.	e/o Evans Rd.	Sensitive	82.2	82.2	0.0	3	No

[1] Based on a review of existing aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

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8 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. As identified in the PVCCSP EIR, sensitive receivers are areas where humans are participating in activities that may be subject to the stress of significant interference from noise and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Other receivers include office and industrial buildings, which are not considered as sensitive as single-family homes, but are still protected by City of Perris land use compatibility standards.

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to the property line of each receiver location.

R1: Location R1 represents the property line of the existing residence at 4063 N Webster Avenue, approximately 94 feet east of the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

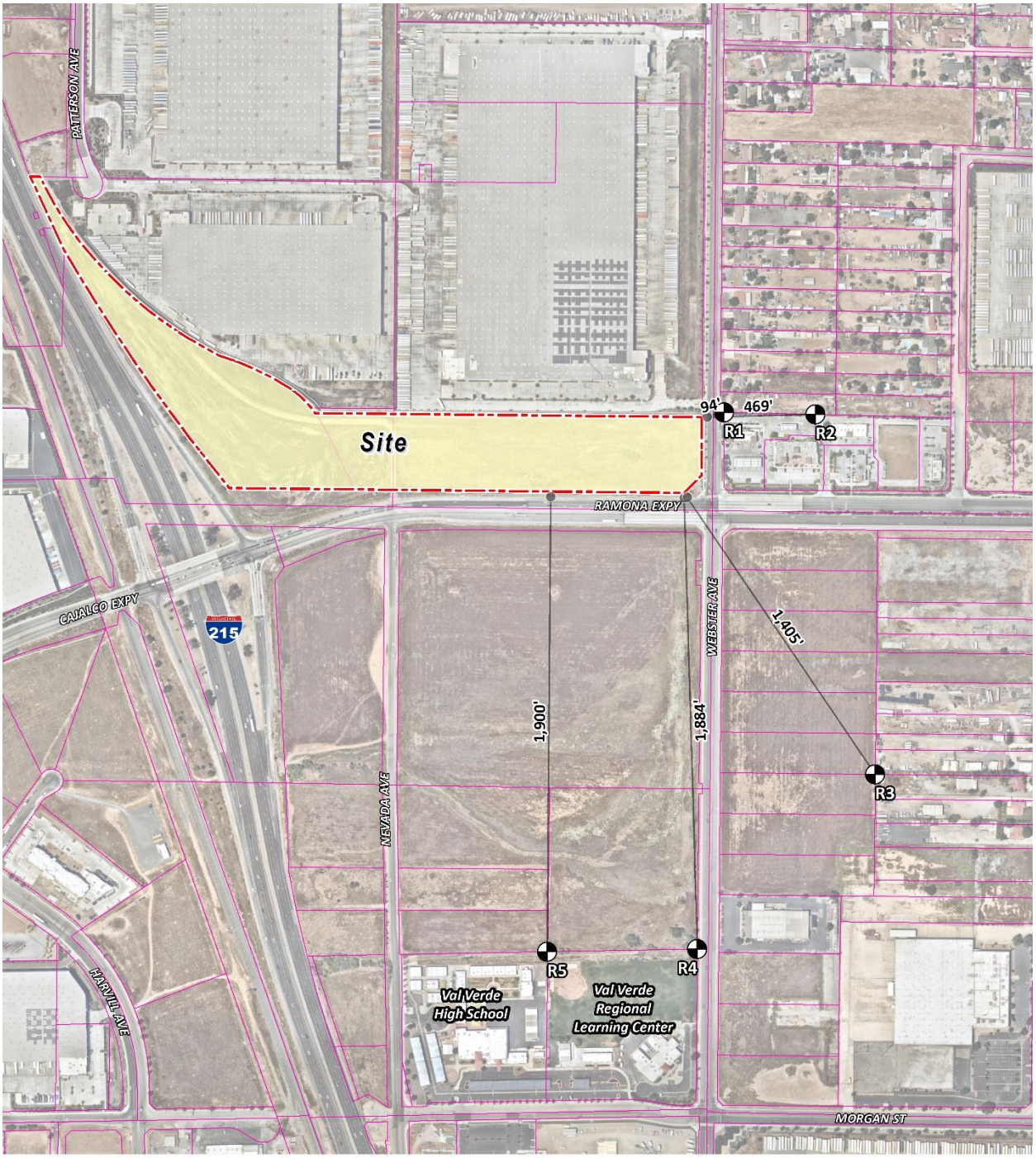
R2: Location R2 represents the property line of the existing residence at 4063 N Webster, approximately 469 feet east of the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing residence at 3832 Brennan Avenue approximately 1,405 feet southeast of the Project site. It appears that the structure at this location represents a legal non-conforming use since this property is zoned as light industrial. However, consistent with direction from the City of Perris, noise standards apply to the property line of the affected residential receiver, not the residential building or the immediate area around the residential building. Noise level measurement L3 is used to describe the existing ambient noise environment at this location.

R4: Location R4 represents the property line of the Val Verde Regional Learning Center athletic field at 3710 Webster Avenue, approximately 1,884 feet south of the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents the property line of the existing noise sensitive Val Verde High School at 972 Morgan Street, approximately 1,900 feet south of the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS



9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the proposed Perris Gateway Project. Exhibit 9-A identifies the representative noise source locations used to assess the operational noise levels.

9.1 OPERATIONAL NOISE SOURCES

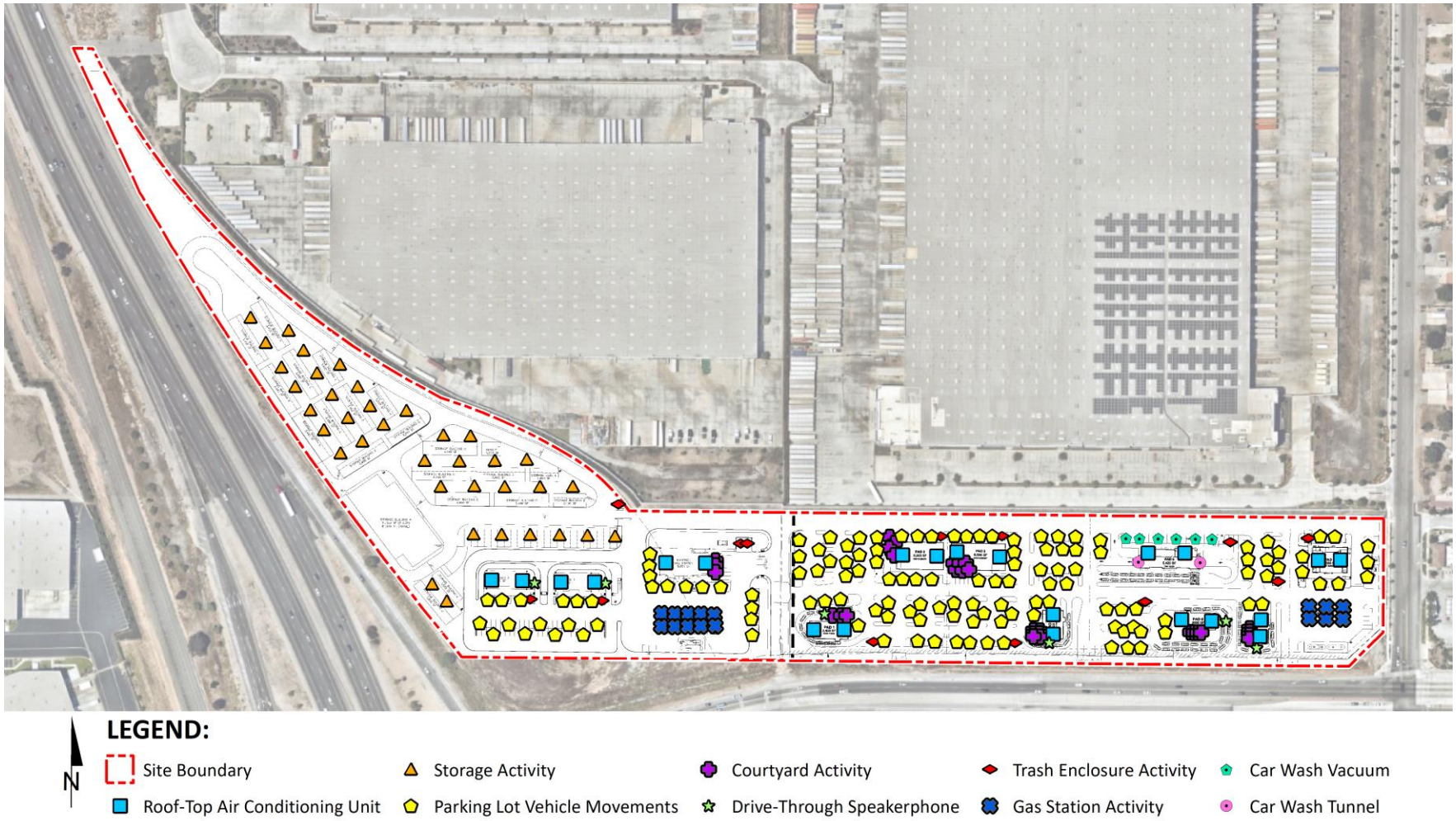
This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project commercial land uses would be operational 24 hours per day, seven days per week. The on-site Project-related noise sources are expected to include: storage activity, roof-top air conditioning units, courtyard activity, drive-through speakerphones, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuums and gas station activity.

9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. Table 9-1 presents both the average hourly L_{eq} and the maximum permissible L_{max} reference noise levels. The average hour L_{eq} noise levels are used to calculate the 24-hour noise levels necessary to demonstrate compliance with the City of Perris 60 dBA CNEL exterior noise level standard for new industrial and large commercial facilities within 160 feet of the property line of existing noise-sensitive land uses. In addition, the average hourly L_{eq} noise levels are used to describe the Project related operational noise level increases.

The L_{max} reference noise levels shown on Table 9-1 are used to estimate the Project's maximum permissible exterior noise level consistent with the City's L_{max} noise level standards. It is important to note that the following projected noise levels assume the worst-case noise environment with the storage activity, roof-top air conditioning units, courtyard activity, drive-through speakerphones, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuums and gas station activity all operating continuously. These sources of noise activity will likely vary throughout the day.

EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS



LEGEND:

N

- Site Boundary
- Roof-Top Air Conditioning Unit
- Storage Activity
- Parking Lot Vehicle Movements
- Courtyard Activity
- Drive-Through Speakerphone
- Trash Enclosure Activity
- Gas Station Activity
- Car Wash Vacuum
- Car Wash Tunnel

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source[1]	Noise Source Height (Feet)	Min./Hour[2]		Reference Noise Level (dBA L_{eq})		Reference Noise Level (dBA L_{max})	
		Day	Night	@ Ref. Dist.	@ 50 Feet	@ Ref. Dist.	@ 50 Feet
Storage Activity	5'	60	0	67.2	62.8	75.6	71.2
Roof-Top Air Conditioning Units	5'	39	28	77.2	57.2	77.7	57.7
Courtyard Activity	5'	60	30	73.8	59.8	80.2	66.2
Drive-Through Speakerphone	3'	60	30	62.0	51.5	65.3	54.8
Trash Enclosure Activity	5'	60	30	72.7	56.8	87.0	71.1
Parking Lot Vehicle Movements	5'	60	30	66.6	56.1	70.2	59.7
Car Wash Tunnel	8'	60	30	88.3	74.3	93.3	79.3
Car Wash Vacuum	3'	60	30	74.6	54.6	78.0	58.0
Gas Station Activity	5'	60	30	68.2	48.2	74.4	54.4

[1] As measured by Urban Crossroads, Inc.
[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.
[3] Truck Movements are calculated based on the number of events by time of day (See Table 9-2).

9.2.2 STORAGE ACTIVITY

The reference storage activities are intended to describe the typical operational noise source levels associated with the Project. This includes truck idling, deliveries, backup alarms, unloading/loading, including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. At a uniform reference distance of 50 feet, Urban Crossroads collected a reference noise level of 71.2 dBA L_{max}. The storage activity noise level measurement was taken over a fifteen-minute period and represents multiple noise sources taken from the center of activity. Storage activity is limited to daytime hours.

9.2.3 ROOF-TOP AIR CONDITIONING UNITS

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from Lennox SCA120 series 10-ton model packaged air conditioning unit. At a uniform reference distance of 50 feet, the roof-top air conditioning units generate a reference noise level of 57.7 dBA L_{max}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings.

9.2.4 COURTYARD ACTIVITY

To describe the outdoor common area courtyards activity areas, a reference noise level measurement was taken. At 50 feet, the reference noise level is 66.2 dBA L_{max} at a noise source height of 5 feet. The reference noise level measurement includes outdoor eating, drinking, with laughing and talking.

9.2.5 DRIVE-THROUGH SPEAKERPHONE ACTIVITY

To describe the potential noise level impacts associated with potential drive-thru speakerphones and vehicle activities, a reference noise level measurement was collected. The reference noise levels collected are expected to reflect potential drive-thru speakerphone noise level activities at the Project site, since the reference measurement includes both drive-thru speakerphone and vehicle activity noise. The noise sources included in the reference noise level measurement consist of voices of the employees over the speakerphone, customers' voices ordering food, car engines idling, car radios playing music, and cars queuing in the drive-thru lane. At 50 feet from the speakerphone, a reference noise level of 54.8 dBA L_{max} was measured.

9.2.6 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 71.1 dBA L_{max} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for each of the Project buildings. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

9.2.7 PARKING LOT VEHICLE MOVEMENTS

To describe the on-site parking lot activity a reference noise level of 59.7 dBA L_{max} at 50 feet is used. Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due cars pulling in and out of parking spaces.

9.2.8 CAR WASH TUNNEL

A reference noise level measurement was taken by Urban Crossroads to describe the air blowers used in a car wash tunnel. A reference noise level of 79.3 dBA L_{max} was measured at the uniform distance of 50 feet. The reference noise level measurement includes an exposed five-unit air blower system with background pressure washer noise and is used to represent the proposed Project facilities. It is anticipated that the air dryers within the proposed car wash will operate continuously during the peak operating conditions. Further, this noise analysis does not include any additional attenuation or directional influence provided by locating the car wash air blower

and dryer equipment inside the tunnel itself, but rather, models the tunnel exit activities as occurring at the building façade. As such, the analysis may conservatively overstate actual noise levels produced by the car wash tunnel air blower and dryer equipment.

9.2.9 CAR WASH VACUUM

To represent self-serve vacuums within the Project site, a reference noise level measurement was collected at an express car wash. The reference noise level measurement represents up to four vacuums operating simultaneously. At a uniform reference distance of 50 feet, the vacuum reference noise level is 58.0 dBA L_{max}. This reference car wash vacuum activity noise level is anticipated to conservatively overstate those of the Project, since this reference noise level includes more vacuums operating simultaneously (4 vacuums) than what will be possible at the Project site (2 vacuums).

9.2.10 GAS STATION ACTIVITY

To describe the potential noise level impacts created by the gas station of the Project, a reference noise level measurement was collected. The reference noise level measurement includes six cars fueling at once, car doors closing, engines starting, fuel pump TV sounds and background car pass-by events within a 3-minute period. At 50 feet from the gas station, a reference noise level of 54.4 dBA L_{max} was measured.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source.

Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 9.1 includes the detailed noise dBA L_{max} model inputs.

9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include storage activity, roof-top air conditioning units, courtyard activity, drive-through speakerphones, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuums and gas station activity, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 9-2 shows the Project operational noise levels during the daytime hours of 7:01 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 52.7 to 63.0 dBA L_{max}.

TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{max})				
	R1	R2	R3	R4	R5
Storage Activity	59.7	58.0	50.7	52.6	54.2
Roof-Top Air Conditioning Units	44.3	38.0	33.3	32.6	33.2
Courtyard Activity	40.0	37.2	40.6	41.9	42.8
Drive-Through Speakerphone	23.5	27.8	23.7	22.3	22.7
Trash Enclosure Activity	54.9	48.8	43.6	42.9	43.3
Parking Lot Vehicle Movements	53.8	46.4	42.7	41.7	42.3
Car Wash Tunnel	56.7	47.5	40.2	38.0	43.5
Car Wash Vacuum	38.2	33.4	21.2	21.0	20.2
Gas Station Activity	41.9	35.7	29.4	28.1	28.6
Total (All Noise Sources)	**63.0**	**59.2**	**52.7**	**53.8**	**55.4**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-3 shows the Project operational noise levels during the nighttime hours of 10:01 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 43.8 to 56.4 dBA L_{max}. The differences between the daytime and nighttime noise levels are largely related to the duration of noise activity (Table 9-1).

TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{max})				
	R1	R2	R3	R4	R5
Storage Activity	0.0	0.0	0.0	0.0	0.0
Roof-Top Air Conditioning Units	41.8	35.6	30.9	30.2	30.8
Courtyard Activity	36.0	33.2	36.7	38.0	38.9
Drive-Through Speakerphone	19.5	23.9	19.7	18.3	18.7
Trash Enclosure Activity	50.9	44.8	39.6	39.0	39.3
Parking Lot Vehicle Movements	49.8	42.4	38.7	37.7	38.3
Car Wash Tunnel	52.8	43.5	36.3	34.0	39.6
Car Wash Vacuum	34.3	29.4	17.2	17.0	16.2
Gas Station Activity	37.9	31.7	25.4	24.1	24.6
Total (All Noise Sources)	**56.4**	**48.9**	**44.3**	**43.8**	**45.3**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Perris exterior noise level standards at nearby noise-sensitive receiver locations. Table 9-4 shows the operational noise levels associated with Perris Gateway Project will not exceed the City of Perris 80 dBA L_{max} daytime and 60 dBA L_{max} nighttime exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.

TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA L_{max})[2]		Exterior Noise Level Standards (dBA L_{max})[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	63.0	56.4	80	60	No	No
R2	59.2	48.9	80	60	No	No
R3	52.7	44.3	80	60	No	No
R4	53.8	43.8	80	60	No	No
R5	55.4	45.3	80	60	No	No

[1] See Exhibit 8-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Tables 9-2 and 9-3.
[3] Exterior noise level standard as shown on Table 3-1.
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

Consistent with the City of Perris General Plan Noise Element, Implementation Measure V.A.1, Project operational noise levels at the nearest sensitive receiver locations cannot exceed 60 dBA CNEL. The CNEL metric is typically used to describe 24-hour transportation-related noise levels, however, the City of Perris General Plan Noise Element requires new industrial facilities and large commercial facilities to demonstrate compliance at any noise-sensitive land use within 160 feet of the Project site.

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive, particularly for noise sensitive residential land use. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. Table 9-5 includes the evening and nighttime adjustments made to the operational noise levels during the applicable hours to convert the hourly operational noise levels (L_{eq}) to 24-hour CNELs. Table 9-5 indicates that the 24-hour noise levels associated with the Perris Gateway at the nearest receiver locations are expected to range from 45.6 to 58.1 dBA CNEL.

TABLE 9-5: OPERATIONAL NOISE LEVEL COMPLIANCE (CNEL)

Receiver Location[1]	Project Operational Noise Levels[2]			Exterior Noise Level Standards (CNEL)[3]	Noise Level Standards Exceeded?[4]
	Daytime (dBA L_{eq})	Nighttime (dBA L_{eq})	24-Hour (CNEL)		
R1	55.5	50.9	58.1	60	No
R2	49.3	43.1	50.8	60	No
R3	43.8	38.6	46.0	60	No
R4	44.1	37.9	45.6	60	No
R5	45.7	39.6	47.2	60	No

[1] See Exhibit 8-A for the receiver locations.
[2] Proposed Project operational noise level calculations are included in Appendix 9.2.
[3] City of Perris General Plan Noise Element Implementation Measure V.A.1
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

Since CNEL noise criteria is used to describe the noise sensitive time periods during the evening and night hours when noise can become more intrusive, the CNEL calculations are limited to the noise sensitive residential receiver locations. The Project-related operational noise levels shown on Table 9-5 will not exceed the City of Perris 60 dBA CNEL exterior noise level standards at the nearest receiver locations. The 24-hour noise level calculations are included in Appendix 9.2.

9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (11) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. As indicated on Table 9-6, the Project will generate a daytime operational noise level increase ranging from 0.0 to 0.2 dBA L_{eq} at the nearest receiver locations. Table 9-7 shows that the Project will generate a nighttime operational noise level increase ranging from 0.0 to 0.2 dBA L_{eq} at the nearest receiver locations. Appendix 9.2 includes the detailed noise dBA L_{eq} model inputs used to estimate the Project operational noise levels presented in this section. The Project-related operational noise level increases will not exceed the operational noise level increase significance criteria presented on Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

TABLE 9-6: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	55.5	L1	68.9	69.1	0.2	3	No
R2	49.3	L2	63.8	64.0	0.2	3	No
R3	43.8	L3	62.8	62.9	0.1	3	No
R4	44.1	L3	62.8	62.9	0.1	3	No
R5	45.7	L4	69.3	69.3	0.0	3	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 9-5.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

TABLE 9-7: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	50.9	L1	64.4	64.6	0.2	3	No
R2	43.1	L2	59.5	59.6	0.1	5	No
R3	38.6	L3	62.1	62.1	0.0	3	No
R4	37.9	L3	62.1	62.1	0.0	3	No
R5	39.6	L4	63.2	63.2	0.0	3	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 9-5.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 8. To prevent high levels of construction noise from impacting noise-sensitive land uses, City of Perris Municipal Code Section 7.34.060 limits construction activities to the hours of 7:00 a.m. to 7:00 p.m. on any day except Sundays and legal holidays (with the exception of Columbus Day and Washington's birthday).

10.1 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when operating at the project site boundaries closest the nearest sensitive receiver locations can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

This construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (17) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment including reference L_{max} noise levels measured at 50 feet.

Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 85 dBA L_{max} when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 85 dBA L_{max} measured at 50 feet from the noise source to the receiver would be reduced to 79 dBA L_{max} at 100 feet from the source to the receiver and would be further reduced to 73 dBA L_{max} at 200 feet from the source to the receiver. Table 10-1 provides a summary of the construction reference noise levels expected with the Project construction activities.

EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS

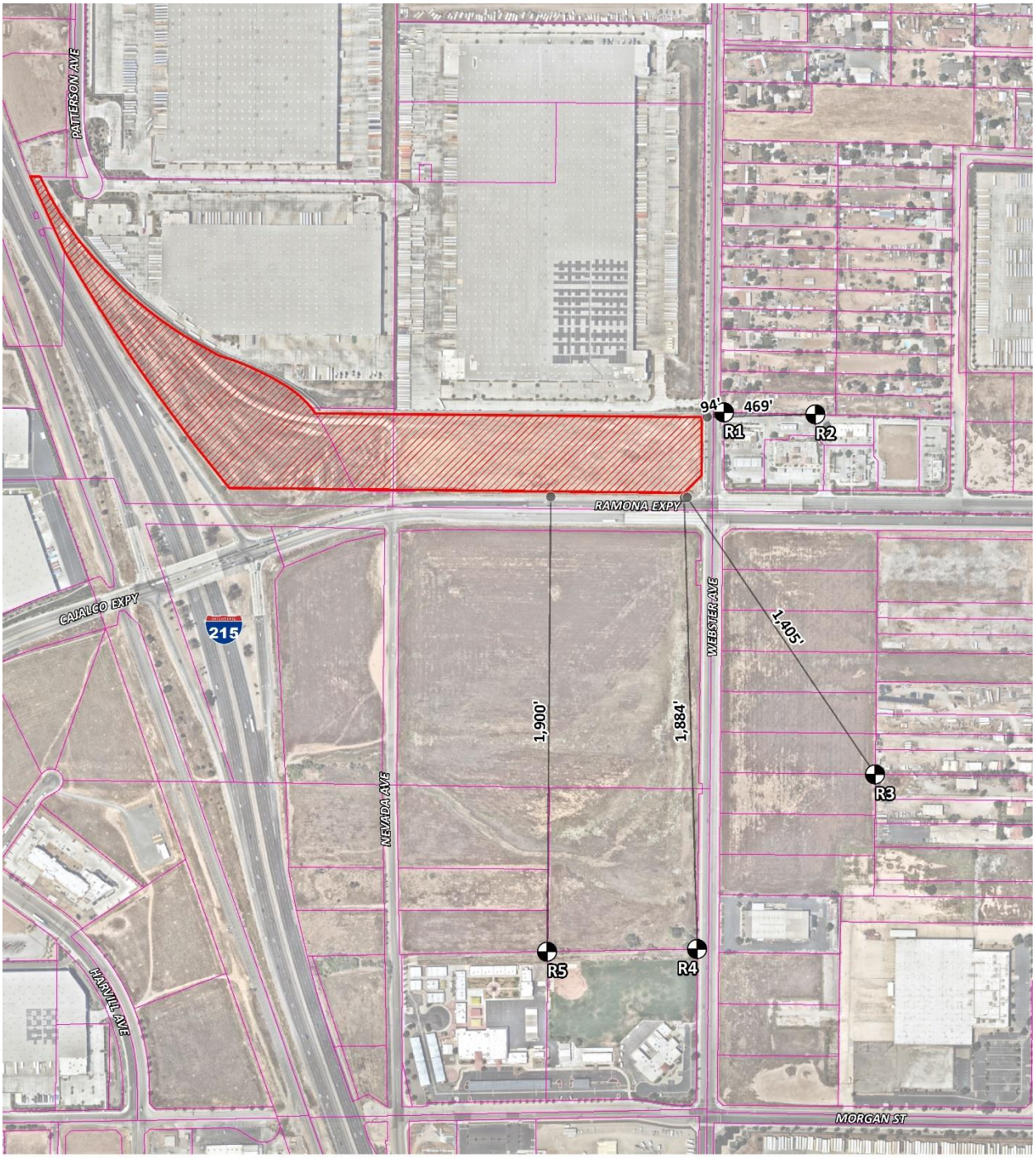


TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{max})[1]	Highest Reference Noise Level (dBA L_{max})
Site Preparation	Crawler Tractors	82	82
	Rubber Tired Dozers	79	
Grading	Crawler Tractors	82	85
	Excavators	81	
	Graders	85	
	Rubber Tired Dozers	79	
	Scrapers	84	
Building Construction	Cranes	81	85
	Forklifts	85	
	Generator Sets	73	
	Backhoes	78	
	Welders	74	
Paving	Pavers	77	85
	Paving Equipment	85	
	Rollers	80	
Arch. Coating	Air Compressors	78	78

[1] FHWA's Roadway Construction Noise Model, January 2006.

10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference RCNM L_{max} construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts with multiple pieces of equipment operating simultaneously at the nearest receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location.

As shown on Table 10-2, the highest construction noise levels are expected to range from 47.9 to 59.9 dBA L_{max} at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Highest Construction Noise Levels (dBA L_{max})					
	Site Preparation	Grading	Building Construction	Paving	Arch. Coating	Highest Levels[2]
R1	56.9	59.9	59.9	59.9	52.9	59.9
R2	51.0	54.0	54.0	54.0	47.0	54.0
R3	45.7	48.7	48.7	48.7	41.7	48.7
R4	44.9	47.9	47.9	47.9	40.9	47.9
R5	45.6	48.6	48.6	48.6	41.6	48.6

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Construction noise level calculations based on distance from the construction activity area to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only construction noise levels are evaluated against exterior noise level thresholds established by Section 7.34.060 of City of Perris Municipal Code at the adjacent property line. As shown on Table 10-3, the estimated construction noise levels at the adjacent noise sensitive receiver locations will satisfy the 80 dBA L_{max} construction noise level standard. Therefore, the unmitigated noise impact due to Project construction activities is considered *less than significant*.

TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{max})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	59.9	80	No
R2	54.0	80	No
R3	48.7	80	No
R4	47.9	80	No
R5	48.6	80	No

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 10-2.
[3] Construction noise level thresholds as shown on Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.5 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities may occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad and loading dock areas. Since the nighttime concrete pours may take place outside the permitted City of Perris Municipal Code Section 7.34.060 hours of 7:00 a.m. to 7:00 p.m. on any day except Sundays and legal holidays (with the exception of Columbus Day and Washington's birthday), the Project Applicant will be required to obtain authorization for nighttime work from the City of Perris. Table 10-4 shows the concrete pour activities noise levels during the building construction phase will range from 47.9 to 59.9 dBA L_{max} at the nearby receiver locations. With prior authorization from the City of Perris, the nighttime concrete pour activities will satisfy the 80 dBA L_{max} construction noise level standard. Therefore, the nighttime concrete pour noise levels are considered *less than significant* at the nearby noise-sensitive receiver locations.

TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{max})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	59.9	80	No
R2	54.0	80	No
R3	48.7	80	No
R4	47.9	80	No
R5	48.6	80	No

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 10-2.
[3] Construction noise level thresholds as shown on Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.6 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 10-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Vibratory Roller	0.210

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Using the vibration source level of construction equipment provided on Table 10-5 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration building damage impacts. Table 10-6 presents the expected Project related vibration levels at the nearby building structure locations. At distances ranging from 94 to 1,900 feet from the Project construction boundary to the receiver building locations, construction vibration velocity levels are estimated to be between 0.000 and 0.012 PPV (in/sec). Based on maximum acceptable vibration threshold identified in the PVCCSP EIR (Page 4.9-27) of 0.5 PPV (in/sec), the typical Project construction vibration levels will satisfy the building damage thresholds at all receiver building locations. Therefore, the Project-related vibration impacts are considered *less than significant* during the construction activities at the Project site.

In addition, the typical construction vibration levels are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating.

TABLE 10-6: CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]						Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level		
R1	94'	0.000	0.005	0.010	0.012	0.029	0.012	0.5	No
R2	469'	0.000	0.000	0.001	0.001	0.003	0.001	0.5	No
R3	1,405'	0.000	0.000	0.000	0.000	0.000	0.000	0.5	No
R4	1,884'	0.000	0.000	0.000	0.000	0.000	0.000	0.5	No
R5	1,900'	0.000	0.000	0.000	0.000	0.000	0.000	0.5	No

[1] Receiver locations are shown on Exhibit 10-A.
[2] Distance from Project construction boundary to the receiver building structure.
[3] Based on the Vibration Source Levels of Construction Equipment (Table 10-5).
[4] PVCC SP EIR, Page 4.9-27.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

11 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2019.
2. **City of Perris.** *Perris Valley Commerce Center Specific Plan Environmental Impact Report.* July 2011.
3. **Office of Planning and Research.** *State of California General Plan Guidelines.* 2019.
4. **State of California.** *2022 California Green Building Standards Code.*
5. **City of Perris.** *General Plan Noise Element.* August 2005.
6. —. *Municipal Code, Chapter 7.34 Noise Control.*
7. **County of Riverside.** *Airport Land Use Compatibility Plan.* October 2004.
8. **Air Force Reserve Command.** *Final Air Installations Compatible Use Zones Study March Air Reserve Base Riverside, California.* 2018.
9. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
10. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
11. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
12. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
13. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.
14. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
15. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
16. **Urban Crossroads, Inc.** *Perris Gateway Traffic Analysis.* October 2023.
17. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model.* January, 2006.

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12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Perris Gateway Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

Bill Lawson, P.E., INCE
Principal
URBAN CROSSROADS, INC.
1133 Camelback #8329
Newport Beach, CA 92658
(949) 581-3148
blawson@urbanxroads.com

EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018
Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF PERRIS MUNICIPAL CODE

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CHAPTER 7.34. - NOISE CONTROL

Sec. 7.34.010. - Declaration of policy.

Excessive noise levels are detrimental to the health and safety of individuals. Noise is considered a public nuisance, and the city discourages unnecessary, excessive or annoying noises from all sources. Creating, maintaining, causing, or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by the provisions of the ordinance codified in this chapter is a public nuisance and shall be punishable as a misdemeanor.

(Code 1972, § 7.34.010; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.020. - Definitions.

(a) *General.* The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Ambient noise means the all-encompassing noise associated with a given environment usually being composed of sounds from many sources near and far. For the purpose of this chapter, ambient noise level is the level obtained when the noise level is averaged over a period of five minutes without inclusion of noise from isolated identifiable sources at the location and time of day near that at which a comparison is to be made.

Decibel (dB) means an intensity unit which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio is ten times the common logarithm of this ratio.

Sound amplifying equipment means any machine or device for the amplification of the human voice, music or any other sound. The term "sound amplifying equipment" does not include standard vehicle radios when used and heard only by the occupants of the vehicle in which the vehicle radio is installed. The term "sound amplifying equipment," as used in this chapter, does not include warning devices on any vehicle used only for traffic safety purposes and shall not include communications equipment used by public or private utilities when restoring utility service following a public emergency or when doing work required to protect person or property from an imminent exposure to danger.

Sound level (noise level) in decibels is the value of a sound measurement using the "A" weighting network of a sound level meter. Slow response of the sound level meter needle shall be used except where the sound is impulsive or rapidly varying in nature, in which case, fast response shall be used.

Sound level meter means an instrument, including a microphone, an amplifier, an output meter and frequency weighting networks, for the measurement of sound levels, which satisfies the pertinent requirements in American National Standards Institute's specification S1.4-1971 or the most recent revision for type S-2A general purpose sound level meters.

(b) *Supplementary definitions of technical terms.* Definitions of technical terms not defined in this section shall be obtained from the American National Standards Institute's Acoustical Terminology S1-1971 or the most recent revision thereof.

(Code 1972, § 7.34.020; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.030. - Measurement methods.

(a) Sound shall be measured with a sound level meter as defined in section 7.34.020.

(b) Unless otherwise provided, outdoor measurements shall be taken with the microphone located at any point on the property line of the noise source but no closer than five feet from any wall or vertical obstruction and three to five feet above ground level whenever possible.

(c) Unless otherwise provided, indoor measurements shall be taken inside the structure with the microphone located at any point as follows:

(1) No less than three feet above floor level;

(2) No less than five feet from any wall or vertical obstruction; and

(3) Not under common possession and control with the building or portion of the building from which the sound is emanating.

(Code 1972, § 7.34.030; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.040. - Sound amplification.

No person shall amplify sound using sound amplifying equipment contrary to any of the following:

(1) The only amplified sound permitted shall be either music or the human voice, or both.

(2) The volume of amplified sound shall not exceed the noise levels set forth in this subsection when measured outdoors at or beyond the property line of the property from which the sound emanates.

Time Period	Maximum Noise Level
10:01 p.m.—7:00 a.m.	60 dBA
7:01 a.m.—10:00 p.m.	80 dBA

(Code 1972, § 7.34.040; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.050. - General prohibition.

(a) It unlawful for any person to willfully make, cause or suffer, or permit to be made or caused, any loud excessive or offensive noises or sounds which unreasonably disturb the peace and quiet of any residential neighborhood or which are physically annoying to persons of ordinary sensitivity or which are so harsh, prolonged or unnatural or unusual in their use, time or place as to occasion physical discomfort to the inhabitants of the city, or any section thereof. The standards for dBA noise level in section 7.34.040 shall apply to this section. To the extent that the noise created causes the noise level at the property line to exceed the ambient noise level by more than 1.0 decibels, it shall be presumed that the noise being created also is in violation of this section.

(b) The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists should include, but not be limited to, the following:

(1) The level of the noise;

(2) Whether the nature of the noise is usual or unusual;

(3) Whether the origin of the noise is natural or unnatural;

(4) The level of the ambient noise;

(5) The proximity of the noise to sleeping facilities;

(6) The nature and zoning of the area from which the noise emanates and the area where it is received;

(7) The time of day or night the noise occurs;

(8) The duration of the noise; and

(9) Whether the noise is recurrent, intermittent or constant.

(Code 1972, § 7.34.050; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.060. - Construction noise.

It is unlawful for any person between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Construction activity shall not exceed 80 dBA in residential zones in the city.

(Code 1972, § 7.34.060; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.070. - Refuse vehicles and parking lot sweepers.

No person shall operate or permit to be operated a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of 7:00 p.m. to 7:00 a.m. in any residential area unless a permit has been applied for and granted by the city.

(Code 1972, § 7.34.070; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.080. - Disturbing, excessive, offensive noises; declaration of certain acts constituting.

The following activities, among others, are declared to cause loud, disturbing, excessive or offensive noises in violation of this section and are unlawful, namely:

(1) *Horns, signaling devices, etc.* Unnecessary use or operation of horns, signaling devices or other similar devices on automobiles, motorcycles or any other vehicle.

(2) *Radios, television sets, phonographs, loud speaking amplifiers and similar devices.* The use or operation of any sound production or reproduction device, radio receiving set, musical instrument, drums, phonograph, television set, loudspeakers, sound amplifier, or other similar machine or device for the producing or reproducing of sound, in such a manner as to disturb the peace, quiet or comfort of any reasonable person of normal sensitivity in any area of the city is prohibited. This provision shall not apply to any participant in a licensed parade or to any person who has been otherwise duly authorized by the city to engage in such conduct.

(3) *Animals.*

a. The keeping or maintenance, or the permitting to be kept or maintained, upon any premises owned, occupied or controlled by any person of any animal or animals which by any frequent or long-continued noise shall cause annoyance or discomfort to a reasonable person of normal sensitiveness

in the vicinity.

b. The noise from any such animal or animals that disturbs two or more residents residing in separate residences adjacent to any part of the property on which the subject animal or animals are kept or maintained, or three or more residents residing in separate residences in close proximity to the property on which the subject animal or animals are kept or maintained, shall be prima facie evidence of a violation of this section.

(4) *Hospitals, schools, libraries, rest homes, long-term medical or mental care facilities.* To make loud, disturbing, excessive noises adjacent to a hospital, school, library, rest home or long-term medical or mental care facility, which noise unreasonably interferes with the workings of such institutions or which disturbs or unduly annoys occupants in said institutions.

(5) *Playing of radios on buses and trolleys.* The operation of any radio, phonograph or tape player on an urban transit bus or trolley so as to emit noise that is audible to any other person in the vehicle is prohibited.

(6) *Playing of radios, phonographs and other sound production or reproduction devices in public parks and public parking lots and streets adjacent thereto.* The operation of any radio, phonograph, television set or any other sound production or reproduction device in any public park or any public parking lot, or street adjacent to such park or beach, without the prior written approval of the city manager or the administrator, in such a manner that such radio, phonograph, television set or sound production or reproduction device emits a sound level exceeding those found in the table in section 7.34.040.

(7) *Leaf blowers.*

a. The term "leaf blower" means any portable, hand-held or backpack, engine-powered device with a nozzle that creates a directable airstream which is capable of and intended for moving leaves and light materials.

b. No person shall operate a leaf blower in any residential zoned area between the hours of 7:00 p.m. and 8:00 a.m. on weekdays and 5:00 p.m. and 9:00 a.m. on weekends or on legal holidays.

c. No person may operate any leaf blower at a sound level in excess of 80 decibels measured at a distance of 50 feet or greater from the point of noise origin.

d. Leaf blowers shall be equipped with functional mufflers and an approved sound limiting device required to ensure that the leaf blower is not capable of generating a sound level exceeding any limit prescribed in this section.

(Code 1972, § 7.34.080; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.090. - Burglar alarms.

(a) Audible burglar alarms for structures or motor vehicles are prohibited unless the operation of such burglar alarm can be terminated within 20 minutes of being activated.

(b) Notwithstanding the requirements of this provision, any member of the county sheriff's department, Perris Division, shall have the right to take such steps as may be reasonable and necessary to disconnect any such alarm installed in any building, dwelling or motor vehicle at any time during the period of its activation. On or after 30 days from the effective date of the ordinance codified in this chapter, any building, dwelling or motor vehicle upon which a burglar alarm has been installed shall prominently display the telephone number at which communication may be made with the owner of such building, dwelling or motor vehicle.

(Code 1972, § 7.34.090; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.100. - Motor vehicles.

(a) Off-highway.

(1) Except as otherwise provided for in this chapter, it shall be unlawful to operate any motor vehicle of any type on any site, other than on a public street or highway as defined in the California Vehicle Code, in any manner so as to cause noise in excess of those noise levels permitted for on-highway motor vehicles as specified in the table for "45-mile-per-hour or less speed limits" contained in section 23130 of the California Vehicle Code and as corrected for distances set forth in subsection (a)(2) of this section.

(2) The maximum noise level as the on-highway vehicle passes may be measured at a distance of other than 50 feet from the centerline of travel, provided the measurement is further adjusted by adding algebraically the application correction as follows:

Distance (feet)	Correction (decibels)
25	−6
28	−5
32	−4
35	−3
40	−2
45	−1
50 (preferred distance)	0
56	+1
63	+2
70	+3
80	+4
90	+5

100	+6

(b) Nothing in this section shall apply to authorized emergency vehicles when being used in emergency situations including the blowing of sirens and/or horns.

(Code 1972, § 7.34.100; Ord. No. 1082, § 2(part), 2000)

APPENDIX 5.1:

STUDY AREA PHOTOS

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JN:15495

15495_L1_A 1.North
33, 50' 44.280000"117, 14' 37.070000"

15495_L1_A 2.South
33, 50' 44.260000"117, 14' 37.070000"

15495_L1_A 3.East
33, 50' 44.230000"117, 14' 37.040000"

15495_L1_A 4.West
33, 50' 44.260000"117, 14' 37.070000"

JN:15495

15495_L2_B 1.North
33, 50' 44.050000"117, 14' 32.950000"

15495_L2_B 2.South
33, 50' 44.000000"117, 14' 32.920000"

15495_L2_B 3.East
33, 50' 43.980000"117, 14' 32.920000"

15495_L2_B 4.West
33, 50' 44.010000"117, 14' 32.950000"

JN:15495

15495_L3_D 1.North
33, 50' 22.780000"117, 14' 38.360000"

15495_L3_D 2.South
33, 50' 22.750000"117, 14' 38.360000"

15495_L3_D 3.East
33, 50' 22.720000"117, 14' 38.300000"

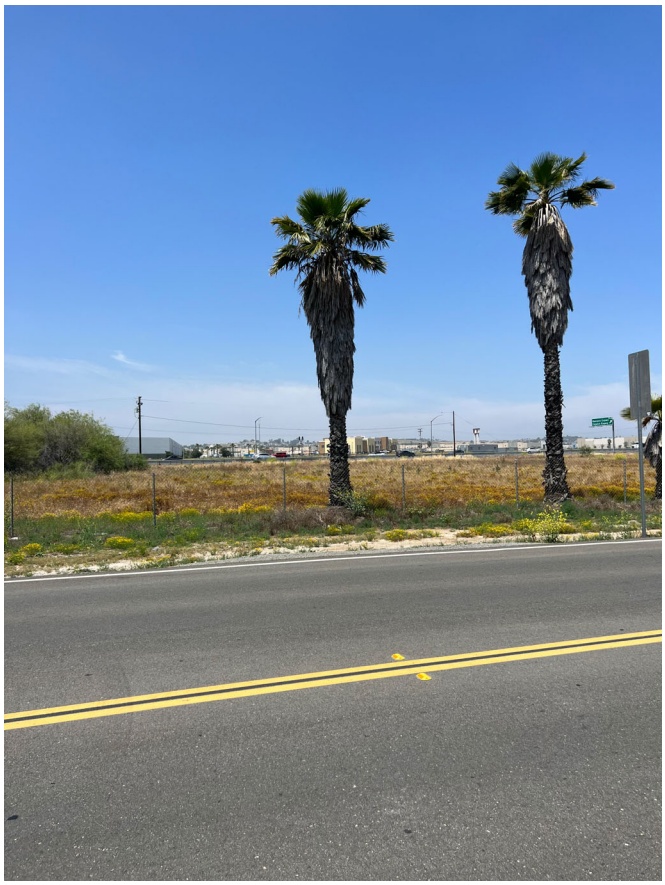
15495_L3_D 4.West
33, 50' 22.740000"117, 14' 38.330000"

JN:15495

15495_L4_F 1.North
33, 50' 22.610000"117, 14' 53.300000"

15495_L4_F 2.South
33, 50' 22.610000"117, 14' 53.270000"

15495_L4_F 3.East
33, 50' 22.630000"117, 14' 53.160000"



15495_L4_F 4.West
33, 50' 22.630000"117, 14' 53.190000"

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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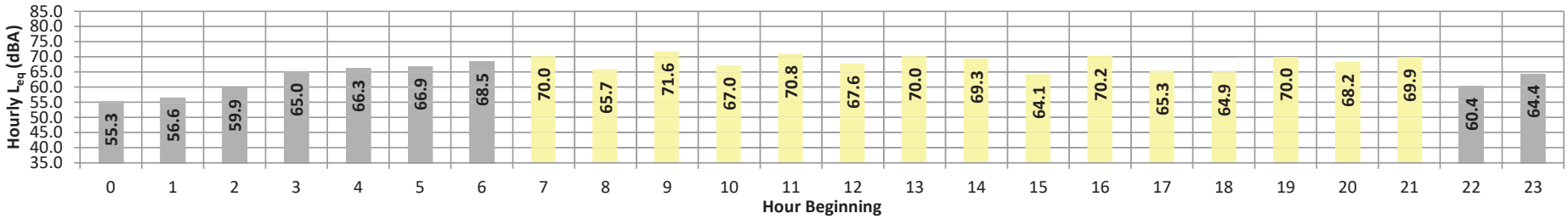
24-Hour Noise Level Measurement Summary

Date: Wednesday, May 17, 2023 | *Location:* L1 - Located east of the site near the residence at 4063 | *Meter:* Piccolo II | *JN:* 15495

Project: Perris Gateway | *Source:* Webster Ave. | *Analyst:* Z. Ibrahim

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	55.3	65.8	48.8	65.1	64.2	61.4	58.6	54.4	52.3	49.8	49.3	48.9	55.3	10.0	65.3
	1	56.6	65.6	48.6	65.3	64.8	62.6	61.0	56.5	53.3	49.8	49.2	48.7	56.6	10.0	66.6
	2	59.9	70.5	49.5	69.8	68.9	67.0	65.5	57.7	53.7	50.5	50.0	49.6	59.9	10.0	69.9
	3	65.0	74.7	53.0	74.3	73.6	71.4	69.2	64.8	62.7	55.2	54.0	53.2	65.0	10.0	75.0
	4	66.3	73.6	58.3	73.2	72.7	71.2	70.2	67.5	64.3	59.5	59.1	58.5	66.3	10.0	76.3
	5	66.9	77.2	58.8	76.3	75.2	72.6	71.1	66.8	63.6	59.6	59.2	58.9	66.9	10.0	76.9
	6	68.5	79.2	58.7	78.6	77.7	75.0	72.9	68.3	64.3	59.6	59.2	58.8	68.5	10.0	78.5
Day	7	70.0	78.3	61.5	77.7	77.1	75.1	73.9	70.6	67.6	64.1	63.0	62.0	70.0	0.0	70.0
	8	65.7	73.1	58.5	72.7	72.2	70.8	69.8	66.8	63.7	60.1	59.8	58.8	65.7	0.0	65.7
	9	71.6	85.7	56.9	84.9	83.6	78.9	72.1	67.5	65.1	60.2	59.3	57.3	71.6	0.0	71.6
	10	67.0	77.3	53.8	76.7	76.1	73.7	71.5	66.4	63.0	56.7	55.4	54.1	67.0	0.0	67.0
	11	70.8	79.6	59.9	79.0	78.4	77.1	75.7	71.6	67.4	62.0	60.8	60.1	70.8	0.0	70.8
	12	67.6	77.4	58.7	76.9	76.1	73.6	71.8	67.5	64.3	60.7	60.3	59.1	67.6	0.0	67.6
	13	70.0	78.7	60.1	78.3	77.7	75.5	74.0	70.5	67.8	62.2	61.3	60.3	70.0	0.0	70.0
	14	69.3	80.7	60.7	80.1	79.3	76.1	73.6	67.7	64.2	61.7	61.3	60.7	69.3	0.0	69.3
	15	64.1	74.2	54.2	73.8	73.2	70.8	68.6	63.7	60.0	55.4	54.9	54.4	64.1	0.0	64.1
	16	70.2	82.4	55.2	81.9	81.2	78.3	74.8	66.6	62.9	56.8	56.0	55.4	70.2	0.0	70.2
	17	65.3	76.0	55.1	75.2	74.0	70.9	69.0	65.0	62.2	57.2	56.0	55.3	65.3	0.0	65.3
	18	64.9	74.6	56.9	74.3	73.5	70.7	68.8	64.9	61.8	58.3	57.7	57.0	64.9	0.0	64.9
	19	70.0	78.6	62.9	78.2	77.5	75.4	73.2	69.9	68.4	64.7	63.9	63.1	70.0	5.0	75.0
	20	68.2	80.5	55.6	79.7	78.4	73.9	71.0	67.6	65.5	56.9	56.3	55.7	68.2	5.0	73.2
	21	69.9	82.2	59.1	81.4	80.8	77.0	74.0	67.6	63.7	59.9	59.6	59.3	69.9	5.0	74.9
Night	22	60.4	71.0	51.6	70.6	70.0	67.3	65.2	59.1	55.6	52.6	52.1	51.7	60.4	10.0	70.4
	23	64.4	74.0	59.3	73.2	72.1	69.1	67.4	65.1	62.1	59.8	59.6	59.4	64.4	10.0	74.4

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	64.1	73.1	53.8	72.7	72.2	70.7	68.6	63.7	60.0	55.4	54.9	54.1
	Max	71.6	85.7	62.9	84.9	83.6	78.9	75.7	71.6	68.4	64.7	63.9	63.1
Energy Average		68.9	Average:		78.1	77.3	74.5	72.1	67.6	64.5	59.8	59.0	58.2
Night	Min	55.3	65.6	48.6	65.1	64.2	61.4	58.6	54.4	52.3	49.8	49.2	48.7
	Max	68.5	79.2	59.3	78.6	77.7	75.0	72.9	68.3	64.3	59.8	59.6	59.4
Energy Average		64.4	Average:		71.8	71.0	68.6	66.8	62.3	59.1	55.2	54.6	54.2

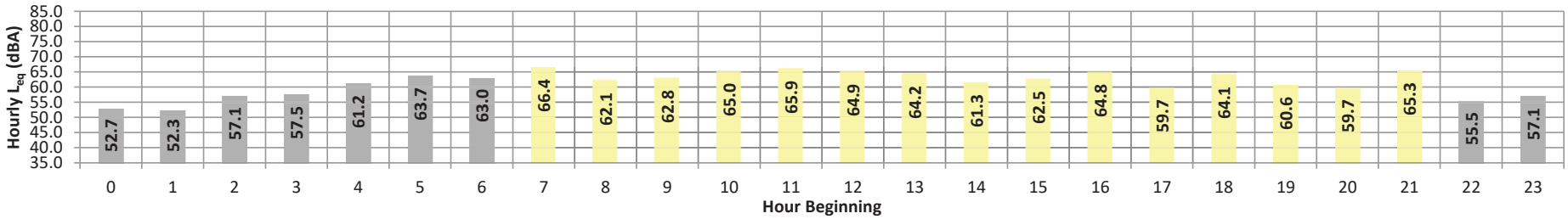
24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Leq (dBA) Nighttime (10pm-7am)
72.5	68.9	64.4

24-Hour Noise Level Measurement Summary

Date: Wednesday, May 17, 2023 | *Location:* L2 - Located east of the site near the commercial building at | *Meter:* Piccolo II | *JN:* 15495

Project: Perris Gateway | *Source:* 764 Ramona Expy. | *Analyst:* Z. Ibrahim

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	52.7	59.7	48.7	59.3	58.6	56.9	55.7	53.2	51.4	49.5	49.2	48.8	52.7	10.0	62.7
	1	52.3	60.6	46.9	60.0	59.3	57.6	56.5	52.2	50.1	47.7	47.4	47.0	52.3	10.0	62.3
	2	57.1	68.0	47.4	67.3	65.9	63.7	62.5	56.0	52.2	48.2	47.8	47.4	57.1	10.0	67.1
	3	57.5	65.0	53.1	64.5	63.8	62.0	61.0	58.0	55.7	53.8	53.4	53.1	57.5	10.0	67.5
	4	61.2	68.7	57.0	67.8	66.5	64.7	64.1	62.2	59.9	57.6	57.3	57.1	61.2	10.0	71.2
	5	63.7	75.2	57.7	74.6	73.2	69.3	66.7	62.6	60.7	58.4	58.1	57.8	63.7	10.0	73.7
	6	63.0	71.5	56.3	70.8	70.0	68.5	67.4	63.2	60.7	57.3	56.9	56.5	63.0	10.0	73.0
Day	7	66.4	76.4	59.5	75.4	74.3	71.6	70.4	66.4	63.9	60.8	60.3	59.7	66.4	0.0	66.4
	8	62.1	74.7	53.3	73.8	72.2	67.0	65.1	60.9	57.9	54.5	54.1	53.5	62.1	0.0	62.1
	9	62.8	73.4	54.5	72.3	70.9	68.6	67.4	62.9	59.0	55.3	54.9	54.6	62.8	0.0	62.8
	10	65.0	79.0	51.3	77.8	75.9	71.6	68.3	62.2	57.2	52.4	51.9	51.5	65.0	0.0	65.0
	11	65.9	76.7	56.8	75.9	75.0	72.9	71.0	64.7	61.2	57.8	57.3	57.0	65.9	0.0	65.9
	12	64.9	76.6	53.9	75.9	74.7	71.3	69.4	63.9	59.8	55.0	54.4	54.0	64.9	0.0	64.9
	13	64.2	75.0	56.9	74.3	73.1	69.5	68.1	64.2	60.6	57.8	57.5	57.0	64.2	0.0	64.2
	14	61.3	70.4	54.8	69.6	69.0	67.7	66.1	61.3	58.1	55.5	55.2	54.9	61.3	0.0	61.3
	15	62.5	73.2	56.5	72.6	71.8	69.2	67.0	60.6	58.7	57.1	56.9	56.6	62.5	0.0	62.5
	16	64.8	72.6	59.3	71.8	71.1	69.7	68.5	65.3	63.0	60.2	59.7	59.5	64.8	0.0	64.8
	17	59.7	68.1	53.8	67.6	67.0	65.3	63.6	59.9	57.3	54.7	54.3	54.0	59.7	0.0	59.7
	18	64.1	79.0	54.3	77.5	75.2	70.7	67.2	59.4	57.0	55.0	54.8	54.4	64.1	0.0	64.1
	19	60.6	69.6	55.0	68.8	68.1	65.7	64.5	60.8	58.1	55.9	55.5	55.1	60.6	5.0	65.6
	20	59.7	71.5	53.6	70.2	68.4	64.4	62.5	59.3	57.2	54.4	54.1	53.7	59.7	5.0	64.7
	21	65.3	80.1	50.7	79.3	78.1	71.9	66.2	58.6	54.9	51.8	51.3	50.9	65.3	5.0	70.3
Night	22	55.5	66.0	49.9	64.9	63.6	60.6	58.8	55.1	53.1	50.9	50.5	50.1	55.5	10.0	65.5
	23	57.1	65.3	49.1	65.0	64.4	63.2	62.0	57.6	53.6	50.1	49.6	49.2	57.1	10.0	67.1

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	59.7	68.1	50.7	67.6	67.0	64.4	62.5	58.6	54.9	51.8	51.3	50.9
	Max	66.4	80.1	59.5	79.3	78.1	72.9	71.0	66.4	63.9	60.8	60.3	59.7
Energy Average		63.8	Average:		73.5	72.3	69.2	67.0	62.0	58.9	55.9	55.5	55.1
Night	Min	52.3	59.7	46.9	59.3	58.6	56.9	55.7	52.2	50.1	47.7	47.4	47.0
	Max	63.7	75.2	57.7	74.6	73.2	69.3	67.4	63.2	60.7	58.4	58.1	57.8
Energy Average		59.5	Average:		66.0	65.0	62.9	61.6	57.8	55.3	52.6	52.3	51.9

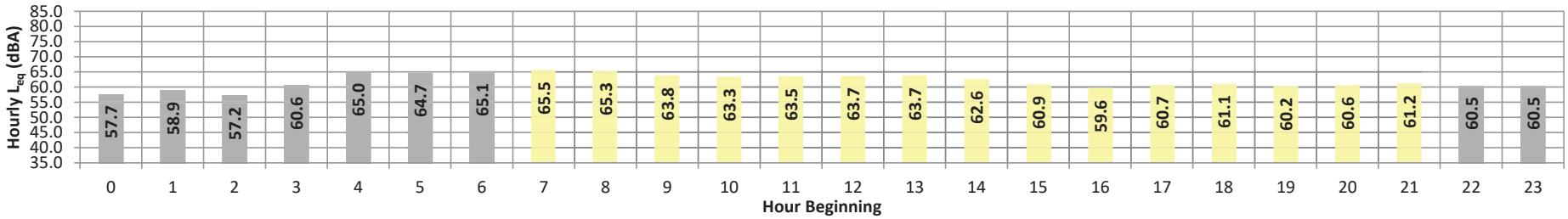
24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Leq (dBA) Nighttime (10pm-7am)
67.3	63.8	59.5

24-Hour Noise Level Measurement Summary

Date: Wednesday, May 17, 2023 | *Location:* L3 - Located south of the site near the educational facility at | *Meter:* Piccolo II | *JN:* 15495

Project: Perris Gateway | *Source:* 3710 Webster Ave. | *Analyst:* Z. Ibrahim

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	57.7	68.7	49.1	68.4	67.8	65.6	62.9	54.7	51.5	49.7	49.4	49.2	57.7	10.0	67.7
	1	58.9	69.3	50.2	69.1	68.7	66.7	64.5	56.5	52.7	51.0	50.7	50.4	58.9	10.0	68.9
	2	57.2	67.8	49.8	67.5	67.0	64.9	62.5	54.8	52.1	50.5	50.2	49.9	57.2	10.0	67.2
	3	60.6	70.6	54.5	70.1	69.3	67.1	65.1	59.2	56.8	55.2	54.9	54.6	60.6	10.0	70.6
	4	65.0	72.8	58.5	72.6	72.1	70.6	69.6	65.6	62.0	59.1	58.9	58.6	65.0	10.0	75.0
	5	64.7	73.6	59.2	73.2	72.6	70.5	68.9	64.6	61.4	59.6	59.5	59.3	64.7	10.0	74.7
	6	65.1	73.5	56.2	73.3	72.8	71.3	70.2	65.7	61.3	57.0	56.6	56.3	65.1	10.0	75.1
Day	7	65.5	73.8	51.8	73.5	73.0	71.5	70.5	66.7	62.1	53.8	52.7	52.0	65.5	0.0	65.5
	8	65.3	75.6	49.9	75.3	74.7	72.2	70.2	65.2	59.8	51.8	51.1	50.2	65.3	0.0	65.3
	9	63.8	73.4	47.8	73.0	72.5	70.6	69.1	64.2	57.9	49.2	48.6	47.9	63.8	0.0	63.8
	10	63.3	72.9	47.4	72.6	72.1	70.5	69.1	63.5	56.9	48.7	48.1	47.5	63.3	0.0	63.3
	11	63.5	72.6	51.5	72.4	72.0	70.3	68.9	63.8	58.7	52.6	52.0	51.6	63.5	0.0	63.5
	12	63.7	72.8	52.7	72.4	71.9	70.1	68.8	64.1	59.2	53.7	53.3	52.8	63.7	0.0	63.7
	13	63.7	73.4	52.9	73.0	72.4	70.1	68.5	64.1	59.4	54.0	53.5	53.0	63.7	0.0	63.7
	14	62.6	71.3	52.6	70.9	70.4	68.9	67.7	63.2	58.5	53.7	53.2	52.8	62.6	0.0	62.6
	15	60.9	71.1	53.0	70.6	69.8	67.2	65.3	60.5	56.7	53.9	53.5	53.1	60.9	0.0	60.9
	16	59.6	68.5	51.3	68.2	67.7	65.9	64.6	59.7	55.3	52.1	51.8	51.4	59.6	0.0	59.6
	17	60.7	69.3	53.7	69.0	68.5	66.7	65.3	61.0	57.2	54.5	54.2	53.9	60.7	0.0	60.7
	18	61.1	69.8	54.7	69.5	69.0	67.0	65.7	61.2	57.5	55.3	55.1	54.8	61.1	0.0	61.1
	19	60.2	68.9	54.7	68.6	68.2	66.2	64.7	59.8	56.9	55.4	55.1	54.9	60.2	5.0	65.2
	20	60.6	70.4	53.5	70.1	69.6	67.3	65.3	59.6	56.5	54.2	53.9	53.6	60.6	5.0	65.6
	21	61.2	70.6	52.9	70.4	69.9	68.0	66.3	60.8	56.8	53.7	53.3	53.0	61.2	5.0	66.2
Night	22	60.5	69.9	51.4	69.6	69.2	67.5	65.9	59.8	55.4	52.2	51.9	51.6	60.5	10.0	70.5
	23	60.5	69.5	48.9	69.3	68.9	67.2	65.7	60.8	56.0	49.9	49.4	49.0	60.5	10.0	70.5

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	59.6	68.5	47.4	68.2	67.7	65.9	64.6	59.6	55.3	48.7	48.1	47.5
	Max	65.5	75.6	54.7	75.3	74.7	72.2	70.5	66.7	62.1	55.4	55.1	54.9
Energy Average		62.8	Average:		71.3	70.8	68.8	67.3	62.5	58.0	53.1	52.6	52.2
Night	Min	57.2	67.8	48.9	67.5	67.0	64.9	62.5	54.7	51.5	49.7	49.4	49.0
	Max	65.1	73.6	59.2	73.3	72.8	71.3	70.2	65.7	62.0	59.6	59.5	59.3
Energy Average		62.1	Average:		70.3	69.8	67.9	66.1	60.2	56.6	53.8	53.5	53.2

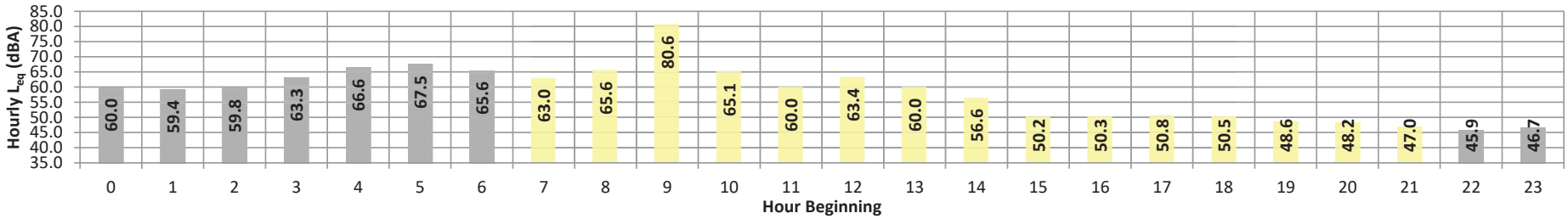
24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Leq (dBA) Nighttime (10pm-7am)
68.8	62.8	62.1

24-Hour Noise Level Measurement Summary

Date: Wednesday, May 17, 2023 | *Location:* L5 - Located south of the site near the Val Verde High School | *Meter:* Piccolo II | *JN:* 15495

Project: Perris Gateway | *Source:* at 972 Morgan St. | *Analyst:* Z. Ibrahim

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	60.0	65.7	55.4	65.3	64.8	63.3	62.4	60.7	59.3	56.6	56.0	55.5	60.0	10.0	70.0
	1	59.4	65.2	54.4	64.9	64.5	63.2	62.2	60.1	58.6	55.6	55.1	54.6	59.4	10.0	69.4
	2	59.8	64.5	55.1	64.2	63.8	62.7	62.2	60.7	59.3	56.5	55.9	55.3	59.8	10.0	69.8
	3	63.3	67.2	60.1	67.0	66.7	65.7	65.1	64.0	62.9	61.0	60.5	60.2	63.3	10.0	73.3
	4	66.6	71.8	63.8	71.5	70.9	69.5	68.9	66.9	65.9	64.5	64.2	63.9	66.6	10.0	76.6
	5	67.5	76.3	64.5	75.9	74.8	71.8	69.7	66.9	66.1	65.1	64.8	64.6	67.5	10.0	77.5
	6	65.6	74.9	60.7	74.4	73.4	70.9	69.3	65.2	63.0	61.3	61.0	60.8	65.6	10.0	75.6
Day	7	63.0	74.4	55.2	73.8	72.7	69.2	67.0	61.8	58.2	56.0	55.6	55.3	63.0	0.0	63.0
	8	65.6	77.2	57.7	76.5	75.3	71.5	69.1	64.1	61.9	59.4	58.7	57.9	65.6	0.0	65.6
	9	80.6	90.3	72.0	88.9	87.5	84.9	84.0	81.1	78.9	74.8	73.7	72.3	80.6	0.0	80.6
	10	65.1	80.4	48.0	78.5	76.8	72.1	67.8	59.0	55.2	50.4	49.6	48.5	65.1	0.0	65.1
	11	60.0	75.3	48.9	73.2	71.0	66.0	63.0	55.2	53.1	50.3	49.8	49.3	60.0	0.0	60.0
	12	63.4	77.7	48.3	75.9	74.4	71.0	68.9	57.1	53.5	49.9	49.3	48.6	63.4	0.0	63.4
	13	60.0	75.6	50.4	71.7	69.5	65.7	62.8	58.0	55.6	52.3	51.8	50.8	60.0	0.0	60.0
	14	56.6	61.6	52.7	61.0	60.4	59.6	59.0	57.4	55.9	53.8	53.4	53.0	56.6	0.0	56.6
	15	50.2	54.7	47.1	54.2	53.9	53.1	52.6	50.9	49.6	48.1	47.8	47.4	50.2	0.0	50.2
	16	50.3	55.2	47.3	54.8	54.4	53.4	52.7	50.8	49.6	48.2	47.9	47.5	50.3	0.0	50.3
	17	50.8	56.3	47.5	55.8	55.4	54.1	53.4	51.2	50.1	48.5	48.2	47.8	50.8	0.0	50.8
	18	50.5	54.9	47.5	54.4	54.1	53.2	52.8	51.0	49.9	48.5	48.2	47.8	50.5	0.0	50.5
	19	48.6	53.9	45.1	53.4	52.9	51.8	51.0	49.2	47.9	46.2	45.8	45.4	48.6	5.0	53.6
	20	48.2	54.2	43.2	53.8	53.4	52.4	51.5	48.9	47.0	44.6	44.1	43.5	48.2	5.0	53.2
	21	47.0	53.1	42.1	52.7	52.3	51.3	50.4	47.6	45.7	43.3	42.9	42.3	47.0	5.0	52.0
Night	22	45.9	51.4	40.8	51.0	50.7	49.7	49.0	46.8	44.9	42.1	41.7	41.1	45.9	10.0	55.9
	23	46.7	52.9	40.4	52.5	52.0	50.9	50.4	47.8	45.2	41.9	41.3	40.7	46.7	10.0	56.7

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	47.0	53.1	42.1	52.7	52.3	51.3	50.4	47.6	45.7	43.3	42.9	42.3
	Max	80.6	90.3	72.0	88.9	87.5	84.9	84.0	81.1	78.9	74.8	73.7	72.3
Energy Average		69.3	Average:		65.2	64.3	62.0	60.4	56.2	54.2	51.6	51.1	50.5
Night	Min	45.9	51.4	40.4	51.0	50.7	49.7	49.0	46.8	44.9	41.9	41.3	40.7
	Max	67.5	76.3	64.5	75.9	74.8	71.8	69.7	66.9	66.1	65.1	64.8	64.6
Energy Average		63.2	Average:		65.2	64.6	63.1	62.1	59.9	58.4	56.1	55.6	55.2

24-Hour CNEL	Leq (dBA) Daytime (7am-10pm)	Leq (dBA) Nighttime (10pm-7am)
71.2	69.3	63.2

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Webster Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,162 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	443 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-4.86	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-15.76	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-16.94	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.9	59.3	57.9	56.1	63.1	63.4
Medium Trucks:	60.5	60.4	55.7	56.3	63.4	63.6
Heavy Trucks:	65.1	64.6	63.0	61.3	68.3	68.6
Vehicle Noise:	67.3	66.8	64.8	63.4	70.4	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	50	108	232	501
CNEL:	53	113	244	525

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Webster Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,954 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	492 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.72%
Medium Trucks:	72.6%	6.2%	21.2%	6.40%
Heavy Trucks:	65.4%	11.5%	23.1%	4.88%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-4.34	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-15.76	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-16.94	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.4	59.9	58.4	56.6	63.6	64.0
Medium Trucks:	60.5	60.4	55.7	56.3	63.4	63.6
Heavy Trucks:	65.1	64.6	63.0	61.3	68.3	68.6
Vehicle Noise:	67.4	66.9	64.9	63.5	70.5	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	110	236	509
CNEL:	53	115	248	533

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Webster Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,395 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	520 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-4.17	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-15.07	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-16.25	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.6	60.0	58.6	56.8	63.8	64.1
Medium Trucks:	61.2	61.1	56.4	57.0	64.1	64.3
Heavy Trucks:	65.8	65.3	63.7	62.0	69.0	69.3
Vehicle Noise:	68.0	67.5	65.5	64.1	71.1	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	120	258	557
CNEL:	58	126	271	584

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Webster Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,187 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	569 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.55%
Medium Trucks:	72.6%	6.2%	21.2%	6.49%
Heavy Trucks:	65.4%	11.5%	23.1%	4.95%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-3.73	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-15.07	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-16.25	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.0	60.5	59.0	57.3	64.2	64.6
Medium Trucks:	61.2	61.1	56.4	57.0	64.1	64.3
Heavy Trucks:	65.8	65.3	63.7	62.0	69.0	69.3
Vehicle Noise:	68.1	67.6	65.6	64.2	71.2	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	122	262	564
CNEL:	59	127	275	592

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Webster Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,879 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	240 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-7.52	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-18.42	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-19.60	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.3	56.7	55.2	53.5	60.4	60.8
Medium Trucks:	57.8	57.7	53.1	53.6	60.8	61.0
Heavy Trucks:	62.5	61.9	60.4	58.6	65.6	66.0
Vehicle Noise:	64.6	64.2	62.1	60.7	67.8	68.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	72	154	333
CNEL:	35	75	162	349

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Webster Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,455 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	276 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	89.09%
Medium Trucks:	72.6%	6.2%	21.2%	6.19%
Heavy Trucks:	65.4%	11.5%	23.1%	4.72%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-6.84	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-18.42	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-19.60	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.9	57.4	55.9	54.1	61.1	61.5
Medium Trucks:	57.8	57.7	53.1	53.6	60.8	61.0
Heavy Trucks:	62.5	61.9	60.4	58.6	65.6	66.0
Vehicle Noise:	64.8	64.3	62.3	60.9	67.9	68.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	34	73	158	340
CNEL:	36	77	165	356

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Webster Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,286 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	389 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-5.43	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-16.33	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-17.51	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.3	58.8	57.3	55.6	62.5	62.9
Medium Trucks:	59.9	59.8	55.2	55.7	62.9	63.0
Heavy Trucks:	64.6	64.0	62.5	60.7	67.7	68.1
Vehicle Noise:	66.7	66.3	64.2	62.8	69.8	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	99	213	459
CNEL:	48	104	223	481

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Webster Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,862 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	425 vehicles
Vehicle Speed:	35 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.53%
Medium Trucks:	72.6%	6.2%	21.2%	6.51%
Heavy Trucks:	65.4%	11.5%	23.1%	4.96%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	-4.99	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	75.75	-16.33	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	81.57	-17.51	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.8	59.2	57.7	56.0	63.0	63.3
Medium Trucks:	59.9	59.8	55.2	55.7	62.9	63.0
Heavy Trucks:	64.6	64.0	62.5	60.7	67.7	68.1
Vehicle Noise:	66.8	66.4	64.3	62.9	69.9	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	100	216	465
CNEL:	49	105	226	488

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Indian Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,505 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	588 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.21	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-15.11	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.29	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.8	62.2	60.7	59.0	66.0	66.3
Medium Trucks:	63.1	63.0	58.3	58.9	66.0	66.2
Heavy Trucks:	67.2	66.7	65.1	63.4	70.4	70.7
Vehicle Noise:	69.6	69.2	67.1	65.7	72.8	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	155	333	717
CNEL:	75	162	349	752

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Indian Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,936 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	615 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.02%
Medium Trucks:	72.6%	6.2%	21.2%	6.80%
Heavy Trucks:	65.4%	11.5%	23.1%	5.18%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.99	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-15.11	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.29	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.0	62.4	61.0	59.2	66.2	66.5
Medium Trucks:	63.1	63.0	58.3	58.9	66.0	66.2
Heavy Trucks:	67.2	66.7	65.1	63.4	70.4	70.7
Vehicle Noise:	69.7	69.2	67.1	65.8	72.8	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	156	335	723
CNEL:	76	163	352	757

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Indian Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,255 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	759 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.11	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-14.01	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-15.19	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.9	63.3	61.8	60.1	67.1	67.4
Medium Trucks:	64.2	64.1	59.5	60.0	67.1	67.3
Heavy Trucks:	68.3	67.8	66.2	64.5	71.5	71.8
Vehicle Noise:	70.7	70.3	68.2	66.8	73.9	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	85	183	394	850
CNEL:	89	192	413	891

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Indian Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,687 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	785 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.90%
Medium Trucks:	72.6%	6.2%	21.2%	6.87%
Heavy Trucks:	65.4%	11.5%	23.1%	5.23%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.94	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-14.01	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-15.19	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.0	63.5	62.0	60.3	67.2	67.6
Medium Trucks:	64.2	64.1	59.5	60.0	67.1	67.3
Heavy Trucks:	68.3	67.8	66.2	64.5	71.5	71.8
Vehicle Noise:	70.8	70.3	68.2	66.9	73.9	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	85	184	397	855
CNEL:	90	193	416	896

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Indian Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,260 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	511 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.82	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-15.72	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.90	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.2	61.6	60.1	58.4	65.4	65.7
Medium Trucks:	62.5	62.4	57.7	58.3	65.4	65.6
Heavy Trucks:	66.6	66.1	64.5	62.8	69.8	70.1
Vehicle Noise:	69.0	68.6	66.5	65.1	72.1	72.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	65	141	303	653
CNEL:	68	148	318	685

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Indian Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,692 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	538 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.10%
Medium Trucks:	72.6%	6.2%	21.2%	6.75%
Heavy Trucks:	65.4%	11.5%	23.1%	5.15%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.57	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-15.72	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.90	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.4	61.8	60.4	58.6	65.6	65.9
Medium Trucks:	62.5	62.4	57.7	58.3	65.4	65.6
Heavy Trucks:	66.6	66.1	64.5	62.8	69.8	70.1
Vehicle Noise:	69.1	68.6	66.5	65.2	72.2	72.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	66	142	306	659
CNEL:	69	149	321	691

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Indian Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,324 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	639 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.85	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-14.75	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-15.93	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.1	62.6	61.1	59.3	66.3	66.7
Medium Trucks:	63.5	63.4	58.7	59.3	66.4	66.6
Heavy Trucks:	67.6	67.0	65.5	63.7	70.7	71.1
Vehicle Noise:	70.0	69.5	67.5	66.1	73.1	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	76	163	352	758
CNEL:	79	171	369	795

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Indian Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,756 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	666 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.98%
Medium Trucks:	72.6%	6.2%	21.2%	6.82%
Heavy Trucks:	65.4%	11.5%	23.1%	5.20%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.65	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	77.72	-14.75	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-15.93	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.3	62.8	61.3	59.6	66.5	66.9
Medium Trucks:	63.5	63.4	58.7	59.3	66.4	66.6
Heavy Trucks:	67.6	67.0	65.5	63.7	70.7	71.1
Vehicle Noise:	70.0	69.6	67.5	66.1	73.2	73.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	76	164	354	763
CNEL:	80	172	371	800

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Perris Blvd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,084 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,924 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.42	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.48	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.66	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	67.0	65.5	63.8	70.7	71.1
Medium Trucks:	67.7	67.6	62.9	63.5	70.6	70.8
Heavy Trucks:	71.3	70.7	69.2	67.5	74.4	74.8
Vehicle Noise:	74.0	73.5	71.4	70.1	77.1	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	190	409	882	1,900
CNEL:	199	429	924	1,992

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Perris Blvd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,947 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,978 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.81%
Medium Trucks:	72.6%	6.2%	21.2%	6.91%
Heavy Trucks:	65.4%	11.5%	23.1%	5.27%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.56	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.48	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.66	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.7	67.1	65.7	63.9	70.9	71.2
Medium Trucks:	67.7	67.6	62.9	63.5	70.6	70.8
Heavy Trucks:	71.3	70.7	69.2	67.5	74.4	74.8
Vehicle Noise:	74.0	73.6	71.4	70.1	77.1	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	191	411	886	1,910
CNEL:	200	431	929	2,002

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Perris Blvd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	43,544 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,695 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.89	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-9.01	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.19	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	68.4	67.0	65.2	72.2	72.5
Medium Trucks:	69.1	69.0	64.4	64.9	72.0	72.2
Heavy Trucks:	72.7	72.2	70.7	68.9	75.9	76.2
Vehicle Noise:	75.4	75.0	72.9	71.5	78.6	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	238	513	1,104	2,379
CNEL:	249	537	1,157	2,494

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Perris Blvd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	44,408 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,749 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.72%
Medium Trucks:	72.6%	6.2%	21.2%	6.97%
Heavy Trucks:	65.4%	11.5%	23.1%	5.31%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.98	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-9.01	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.19	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.1	68.5	67.1	65.3	72.3	72.6
Medium Trucks:	69.1	69.0	64.4	64.9	72.0	72.2
Heavy Trucks:	72.7	72.2	70.7	68.9	75.9	76.2
Vehicle Noise:	75.5	75.0	72.9	71.6	78.6	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	239	514	1,108	2,387
CNEL:	250	539	1,161	2,502

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Perris Blvd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	24,974 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,546 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.53	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-11.43	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.61	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	66.0	64.6	62.8	69.8	70.1
Medium Trucks:	66.7	66.6	61.9	62.5	69.6	69.8
Heavy Trucks:	70.3	69.8	68.2	66.5	73.5	73.8
Vehicle Noise:	73.0	72.6	70.5	69.1	76.1	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	164	354	762	1,642
CNEL:	172	371	799	1,721

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Perris Blvd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,837 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,599 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.89%
Medium Trucks:	72.6%	6.2%	21.2%	6.87%
Heavy Trucks:	65.4%	11.5%	23.1%	5.24%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.36	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-11.43	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.61	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	66.2	64.7	63.0	70.0	70.3
Medium Trucks:	66.7	66.6	61.9	62.5	69.6	69.8
Heavy Trucks:	70.3	69.8	68.2	66.5	73.5	73.8
Vehicle Noise:	73.1	72.6	70.5	69.2	76.2	76.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	165	356	767	1,652
CNEL:	173	373	804	1,732

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Perris Blvd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,084 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,986 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.56	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.34	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.52	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.7	67.1	65.7	63.9	70.9	71.2
Medium Trucks:	67.8	67.7	63.0	63.6	70.7	70.9
Heavy Trucks:	71.4	70.9	69.3	67.6	74.6	74.9
Vehicle Noise:	74.1	73.7	71.5	70.2	77.2	77.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	194	418	901	1,941
CNEL:	203	438	944	2,034

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Perris Blvd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,948 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,039 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.80%
Medium Trucks:	72.6%	6.2%	21.2%	6.92%
Heavy Trucks:	65.4%	11.5%	23.1%	5.28%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.69	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.34	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.52	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.8	67.2	65.8	64.0	71.0	71.4
Medium Trucks:	67.8	67.7	63.0	63.6	70.7	70.9
Heavy Trucks:	71.4	70.9	69.3	67.6	74.6	74.9
Vehicle Noise:	74.1	73.7	71.6	70.2	77.3	77.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	195	420	905	1,950
CNEL:	204	440	949	2,044

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Redlands Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,860 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	610 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.56	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-15.46	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.64	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.4	63.8	62.3	60.6	67.6	67.9
Medium Trucks:	64.5	64.4	59.7	60.3	67.4	67.6
Heavy Trucks:	68.1	67.6	66.0	64.3	71.3	71.6
Vehicle Noise:	70.8	70.4	68.2	66.9	73.9	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	86	185	398	857
CNEL:	90	194	417	899

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Redlands Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,004 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	619 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.66%
Medium Trucks:	72.6%	6.2%	21.2%	7.00%
Heavy Trucks:	65.4%	11.5%	23.1%	5.34%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.49	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-15.46	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.64	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.4	63.9	62.4	60.7	67.6	68.0
Medium Trucks:	64.5	64.4	59.7	60.3	67.4	67.6
Heavy Trucks:	68.1	67.6	66.0	64.3	71.3	71.6
Vehicle Noise:	70.8	70.4	68.3	66.9	73.9	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	86	185	399	860
CNEL:	90	194	418	901

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Redlands Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,786 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,225 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.54	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-12.44	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.62	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	66.8	65.4	63.6	70.6	70.9
Medium Trucks:	67.5	67.4	62.8	63.3	70.4	70.6
Heavy Trucks:	71.1	70.6	69.1	67.3	74.3	74.6
Vehicle Noise:	73.8	73.4	71.3	69.9	76.9	77.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	136	294	633	1,364
CNEL:	143	308	664	1,430

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Redlands Av.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,930 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,234 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.57%
Medium Trucks:	72.6%	6.2%	21.2%	7.06%
Heavy Trucks:	65.4%	11.5%	23.1%	5.38%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.50	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-12.44	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-13.62	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	66.9	65.4	63.6	70.6	71.0
Medium Trucks:	67.5	67.4	62.8	63.3	70.4	70.6
Heavy Trucks:	71.1	70.6	69.1	67.3	74.3	74.6
Vehicle Noise:	73.8	73.4	71.3	69.9	76.9	77.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	137	294	634	1,366
CNEL:	143	308	665	1,432

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Redlands Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,999 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	433 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-6.05	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-16.95	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.13	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	62.3	60.8	59.1	66.1	66.4
Medium Trucks:	63.0	62.9	58.2	58.8	65.9	66.1
Heavy Trucks:	66.6	66.1	64.5	62.8	69.8	70.1
Vehicle Noise:	69.3	68.9	66.7	65.4	72.4	72.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	68	147	317	682
CNEL:	72	154	332	715

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Redlands Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,287 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	451 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.97%
Medium Trucks:	72.6%	6.2%	21.2%	6.83%
Heavy Trucks:	65.4%	11.5%	23.1%	5.20%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-5.85	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-16.95	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.13	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.1	62.5	61.0	59.3	66.3	66.6
Medium Trucks:	63.0	62.9	58.2	58.8	65.9	66.1
Heavy Trucks:	66.6	66.1	64.5	62.8	69.8	70.1
Vehicle Noise:	69.4	68.9	66.8	65.5	72.5	72.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	69	148	319	687
CNEL:	72	155	334	720

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Redlands Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,627 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	844 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.16	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.06	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.24	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	65.2	63.7	62.0	69.0	69.3
Medium Trucks:	65.9	65.8	61.1	61.7	68.8	69.0
Heavy Trucks:	69.5	69.0	67.4	65.7	72.7	73.0
Vehicle Noise:	72.2	71.8	69.6	68.3	75.3	75.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	106	229	494	1,064
CNEL:	112	240	518	1,115

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Redlands Av.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,915 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	861 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	47.0 feet
Centerline Dist. to Observer:	47.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.73%
Medium Trucks:	72.6%	6.2%	21.2%	6.96%
Heavy Trucks:	65.4%	11.5%	23.1%	5.31%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.079
Medium Trucks:	37.846
Heavy Trucks:	37.869

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.05	1.67	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.06	1.71	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-15.24	1.71	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	65.3	63.8	62.1	69.1	69.4
Medium Trucks:	65.9	65.8	61.1	61.7	68.8	69.0
Heavy Trucks:	69.5	69.0	67.4	65.7	72.7	73.0
Vehicle Noise:	72.2	71.8	69.7	68.3	75.3	75.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	107	230	496	1,068
CNEL:	112	241	520	1,119

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Evans Rd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	34,349 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,126 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.86	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.04	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.22	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	67.4	66.0	64.2	71.2	71.5
Medium Trucks:	68.1	68.0	63.3	63.9	71.0	71.2
Heavy Trucks:	71.7	71.2	69.6	67.9	74.9	75.2
Vehicle Noise:	74.4	74.0	71.8	70.5	77.5	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	203	438	943	2,031
CNEL:	213	459	988	2,129

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Evans Rd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	34,781 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,153 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.63%
Medium Trucks:	72.6%	6.2%	21.2%	7.02%
Heavy Trucks:	65.4%	11.5%	23.1%	5.35%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.92	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.04	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.22	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	67.5	66.0	64.3	71.2	71.6
Medium Trucks:	68.1	68.0	63.3	63.9	71.0	71.2
Heavy Trucks:	71.7	71.2	69.6	67.9	74.9	75.2
Vehicle Noise:	74.4	74.0	71.9	70.5	77.5	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	204	439	945	2,036
CNEL:	213	460	990	2,134

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Evans Rd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	51,067 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,161 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.58	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-8.32	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.50	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.7	69.1	67.7	65.9	72.9	73.2
Medium Trucks:	69.8	69.7	65.1	65.6	72.7	72.9
Heavy Trucks:	73.4	72.9	71.4	69.6	76.6	76.9
Vehicle Noise:	76.1	75.7	73.6	72.2	79.2	79.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	265	570	1,228	2,646
CNEL:	277	597	1,287	2,773

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Evans Rd.
Road Segment: n/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	51,500 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,188 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.58%
Medium Trucks:	72.6%	6.2%	21.2%	7.05%
Heavy Trucks:	65.4%	11.5%	23.1%	5.37%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.62	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-8.32	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.50	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	69.2	67.7	66.0	72.9	73.3
Medium Trucks:	69.8	69.7	65.1	65.6	72.7	72.9
Heavy Trucks:	73.4	72.9	71.4	69.6	76.6	76.9
Vehicle Noise:	76.1	75.7	73.6	72.2	79.3	79.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	265	571	1,230	2,650
CNEL:	278	598	1,289	2,777

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Evans Rd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,002 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,424 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.88	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-11.79	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.96	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	65.7	64.2	62.5	69.4	69.8
Medium Trucks:	66.4	66.3	61.6	62.2	69.3	69.5
Heavy Trucks:	70.0	69.4	67.9	66.2	73.1	73.5
Vehicle Noise:	72.7	72.2	70.1	68.8	75.8	76.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	155	335	722	1,555
CNEL:	163	351	756	1,629

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Evans Rd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,433 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	1,451 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.71%
Medium Trucks:	72.6%	6.2%	21.2%	6.98%
Heavy Trucks:	65.4%	11.5%	23.1%	5.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.79	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-11.79	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.96	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	65.8	64.3	62.6	69.5	69.9
Medium Trucks:	66.4	66.3	61.6	62.2	69.3	69.5
Heavy Trucks:	70.0	69.4	67.9	66.2	73.1	73.5
Vehicle Noise:	72.7	72.2	70.1	68.8	75.8	76.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	156	336	724	1,560
CNEL:	163	352	759	1,635

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Evans Rd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	57,290 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,546 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.08	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-7.82	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.00	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	69.6	68.2	66.4	73.4	73.7
Medium Trucks:	70.3	70.2	65.6	66.1	73.2	73.4
Heavy Trucks:	73.9	73.4	71.9	70.1	77.1	77.4
Vehicle Noise:	76.6	76.2	74.1	72.7	79.7	80.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	286	615	1,326	2,857
CNEL:	299	645	1,390	2,994

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Evans Rd.
Road Segment: s/o Ramona Expy.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	57,723 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,573 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	64.0 feet
Centerline Dist. to Observer:	64.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.57%
Medium Trucks:	72.6%	6.2%	21.2%	7.05%
Heavy Trucks:	65.4%	11.5%	23.1%	5.38%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	50.210
Medium Trucks:	50.033
Heavy Trucks:	50.050

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.12	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-7.82	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.00	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	69.7	68.2	66.5	73.4	73.8
Medium Trucks:	70.3	70.2	65.6	66.1	73.2	73.4
Heavy Trucks:	73.9	73.4	71.9	70.1	77.1	77.4
Vehicle Noise:	76.6	76.2	74.1	72.7	79.8	80.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	286	616	1,328	2,860
CNEL:	300	646	1,392	2,998

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: w/o I-215 SB Ramps
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,108 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,173 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.49	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-10.41	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.59	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	66.8	65.3	63.6	70.6	70.9
Medium Trucks:	67.3	67.2	62.5	63.1	70.2	70.4
Heavy Trucks:	70.5	69.9	68.4	66.7	73.6	74.0
Vehicle Noise:	73.4	73.0	70.8	69.5	76.5	76.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	251	541	1,164	2,509
CNEL:	263	566	1,220	2,629

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: w/o I-215 SB Ramps
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,828 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,218 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.73%
Medium Trucks:	72.6%	6.2%	21.2%	6.96%
Heavy Trucks:	65.4%	11.5%	23.1%	5.31%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.60	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-10.41	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.59	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.5	66.9	65.4	63.7	70.7	71.0
Medium Trucks:	67.3	67.2	62.5	63.1	70.2	70.4
Heavy Trucks:	70.5	69.9	68.4	66.7	73.6	74.0
Vehicle Noise:	73.4	73.0	70.9	69.5	76.6	76.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	252	543	1,169	2,519
CNEL:	264	569	1,225	2,639

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: w/o I-215 SB Ramps
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	63,332 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,920 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.06	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-7.85	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.02	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.9	69.4	67.9	66.2	73.1	73.5
Medium Trucks:	69.8	69.7	65.1	65.7	72.8	73.0
Heavy Trucks:	73.0	72.5	71.0	69.2	76.2	76.5
Vehicle Noise:	76.0	75.5	73.4	72.1	79.1	79.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	372	801	1,726	3,718
CNEL:	390	839	1,808	3,896

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: w/o I-215 SB Ramps
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	64,052 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,965 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.62%
Medium Trucks:	72.6%	6.2%	21.2%	7.03%
Heavy Trucks:	65.4%	11.5%	23.1%	5.36%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.11	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-7.85	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.02	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.0	69.4	68.0	66.2	73.2	73.5
Medium Trucks:	69.8	69.7	65.1	65.7	72.8	73.0
Heavy Trucks:	73.0	72.5	71.0	69.2	76.2	76.5
Vehicle Noise:	76.0	75.6	73.4	72.1	79.1	79.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	373	803	1,729	3,726
CNEL:	390	841	1,812	3,904

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: w/o Nevada Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	46,795 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,897 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.74	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-9.16	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.34	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.6	68.0	66.6	64.8	71.8	72.2
Medium Trucks:	68.5	68.4	63.8	64.3	71.5	71.6
Heavy Trucks:	71.7	71.2	69.6	67.9	74.9	75.2
Vehicle Noise:	74.7	74.2	72.1	70.8	77.8	78.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	304	655	1,410	3,039
CNEL:	318	686	1,478	3,184

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: w/o Nevada Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	54,712 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,387 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	89.29%
Medium Trucks:	72.6%	6.2%	21.2%	6.08%
Heavy Trucks:	65.4%	11.5%	23.1%	4.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.51	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-9.16	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.34	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.4	68.8	67.4	65.6	72.6	72.9
Medium Trucks:	68.5	68.4	63.8	64.3	71.5	71.6
Heavy Trucks:	71.7	71.2	69.6	67.9	74.9	75.2
Vehicle Noise:	74.9	74.4	72.3	71.0	78.0	78.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	314	676	1,456	3,137
CNEL:	329	708	1,526	3,288

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: w/o Nevada Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	92,796 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	5,744 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.72	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-6.19	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-7.36	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.6	71.0	69.6	67.8	74.8	75.1
Medium Trucks:	71.5	71.4	66.7	67.3	74.4	74.6
Heavy Trucks:	74.7	74.2	72.6	70.9	77.9	78.2
Vehicle Noise:	77.6	77.2	75.1	73.7	80.8	81.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	480	1,033	2,226	4,796
CNEL:	503	1,083	2,333	5,026

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: w/o Nevada Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	100,714 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,234 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.46%
Medium Trucks:	72.6%	6.2%	21.2%	6.55%
Heavy Trucks:	65.4%	11.5%	23.1%	4.99%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.12	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-6.19	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-7.36	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.0	71.4	70.0	68.2	75.2	75.5
Medium Trucks:	71.5	71.4	66.7	67.3	74.4	74.6
Heavy Trucks:	74.7	74.2	72.6	70.9	77.9	78.2
Vehicle Noise:	77.7	77.3	75.2	73.8	80.9	81.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	487	1,050	2,263	4,875
CNEL:	511	1,101	2,371	5,109

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: w/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	44,715 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,768 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	1.55	-2.12	-1.20	*-4.76*	0.000	0.000
Medium Trucks:	81.00	-9.36	-2.11	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-10.54	-2.11	-1.20	*-5.18*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.4	67.9	66.4	64.6	71.6	72.0
Medium Trucks:	68.3	68.2	63.6	64.1	71.3	71.4
Heavy Trucks:	71.5	71.0	69.4	67.7	74.7	75.0
Vehicle Noise:	74.5	74.0	71.9	70.6	77.6	77.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	295	635	1,368	2,948
CNEL:	309	666	1,434	3,089

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: w/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	49,034 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	3,035 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	65.0%	11.6%	23.3%	88.58%
Medium Trucks:	72.6%	6.2%	21.2%	6.48%
Heavy Trucks:	65.4%	11.5%	23.1%	4.94%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	2.00	-2.12	-1.20	*-4.76*	0.000	0.000
Medium Trucks:	81.00	-9.36	-2.11	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-10.54	-2.11	-1.20	*-5.18*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	68.3	66.9	65.1	72.1	72.4
Medium Trucks:	68.3	68.2	63.6	64.1	71.3	71.4
Heavy Trucks:	71.5	71.0	69.4	67.7	74.7	75.0
Vehicle Noise:	74.6	74.1	72.0	70.7	77.7	78.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	300	647	1,394	3,002
CNEL:	315	678	1,461	3,147

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: w/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	92,982 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	5,756 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	4.72	-2.12	-1.20	*-4.76*	0.000	0.000
Medium Trucks:	81.00	-6.18	-2.11	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-7.36	-2.11	-1.20	*-5.18*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	71.6	71.0	69.6	67.8	74.8	75.1
Medium Trucks:	71.5	71.4	66.8	67.3	74.4	74.6
Heavy Trucks:	74.7	74.2	72.6	70.9	77.9	78.2
Vehicle Noise:	77.7	77.2	75.1	73.8	80.8	81.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	480	1,035	2,229	4,802
CNEL:	503	1,084	2,336	5,033

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: w/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	97,301 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,023 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	65.0%	11.6%	23.3%	88.03%
Medium Trucks:	72.6%	6.2%	21.2%	6.79%
Heavy Trucks:	65.4%	11.5%	23.1%	5.18%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	4.95	-2.12	-1.20	*-4.76*	0.000	0.000
Medium Trucks:	81.00	-6.18	-2.11	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-7.36	-2.11	-1.20	*-5.18*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	71.8	71.3	69.8	68.1	75.0	75.4
Medium Trucks:	71.5	71.4	66.8	67.3	74.4	74.6
Heavy Trucks:	74.7	74.2	72.6	70.9	77.9	78.2
Vehicle Noise:	77.7	77.3	75.1	73.8	80.8	81.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	485	1,044	2,249	4,845
CNEL:	508	1,094	2,357	5,078

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: e/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	40,620 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,514 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.13	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-9.77	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.95	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	67.4	66.0	64.2	71.2	71.5
Medium Trucks:	67.9	67.8	63.2	63.7	70.8	71.0
Heavy Trucks:	71.1	70.6	69.0	67.3	74.3	74.6
Vehicle Noise:	74.1	73.6	71.5	70.2	77.2	77.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	276	596	1,283	2,765
CNEL:	290	624	1,345	2,897

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: e/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	45,083 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,791 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.71%
Medium Trucks:	72.6%	6.2%	21.2%	6.40%
Heavy Trucks:	65.4%	11.5%	23.1%	4.88%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.64	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-9.77	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.95	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	67.9	66.5	64.7	71.7	72.1
Medium Trucks:	67.9	67.8	63.2	63.7	70.8	71.0
Heavy Trucks:	71.1	70.6	69.0	67.3	74.3	74.6
Vehicle Noise:	74.2	73.7	71.6	70.3	77.3	77.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	282	608	1,310	2,823
CNEL:	296	638	1,373	2,959

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: e/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	105,291 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,518 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.26	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-5.64	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.82	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.1	71.6	70.1	68.4	75.3	75.7
Medium Trucks:	72.1	72.0	67.3	67.9	75.0	75.2
Heavy Trucks:	75.3	74.7	73.2	71.4	78.4	78.8
Vehicle Noise:	78.2	77.8	75.6	74.3	81.3	81.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	522	1,124	2,422	5,217
CNEL:	547	1,178	2,538	5,467

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: e/o Webster Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	109,754 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,794 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.98%
Medium Trucks:	72.6%	6.2%	21.2%	6.82%
Heavy Trucks:	65.4%	11.5%	23.1%	5.20%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.47	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	81.00	-5.64	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.82	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.4	71.8	70.3	68.6	75.5	75.9
Medium Trucks:	72.1	72.0	67.3	67.9	75.0	75.2
Heavy Trucks:	75.3	74.7	73.2	71.4	78.4	78.8
Vehicle Noise:	78.2	77.8	75.7	74.3	81.4	81.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	526	1,133	2,441	5,260
CNEL:	551	1,188	2,559	5,512

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: w/o Perris Blvd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,748 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,460 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.62	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-10.28	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.46	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.1	68.5	67.0	65.3	72.3	72.6
Medium Trucks:	68.8	68.7	64.0	64.6	71.7	71.9
Heavy Trucks:	71.6	71.1	69.5	67.8	74.8	75.1
Vehicle Noise:	74.8	74.4	72.2	70.9	77.9	78.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	310	668	1,440	3,101
CNEL:	325	700	1,508	3,249

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: w/o Perris Blvd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	43,346 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,683 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.51%
Medium Trucks:	72.6%	6.2%	21.2%	6.52%
Heavy Trucks:	65.4%	11.5%	23.1%	4.97%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	1.05	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-10.28	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.46	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	68.9	67.5	65.7	72.7	73.0
Medium Trucks:	68.8	68.7	64.0	64.6	71.7	71.9
Heavy Trucks:	71.6	71.1	69.5	67.8	74.8	75.1
Vehicle Noise:	74.9	74.5	72.3	71.0	78.0	78.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	316	681	1,466	3,159
CNEL:	331	713	1,537	3,311

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: w/o Perris Blvd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	104,026 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,439 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.80	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-6.10	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.28	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.3	72.7	71.2	69.5	76.5	76.8
Medium Trucks:	73.0	72.9	68.2	68.8	75.9	76.1
Heavy Trucks:	75.8	75.3	73.7	72.0	79.0	79.3
Vehicle Noise:	79.0	78.5	76.4	75.1	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	589	1,269	2,734	5,890
CNEL:	617	1,330	2,864	6,171

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: w/o Perris Blvd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	107,625 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,662 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.89%
Medium Trucks:	72.6%	6.2%	21.2%	6.87%
Heavy Trucks:	65.4%	11.5%	23.1%	5.24%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.97	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-6.10	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.28	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.4	72.9	71.4	69.6	76.6	77.0
Medium Trucks:	73.0	72.9	68.2	68.8	75.9	76.1
Heavy Trucks:	75.8	75.3	73.7	72.0	79.0	79.3
Vehicle Noise:	79.0	78.6	76.4	75.1	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	593	1,278	2,753	5,932
CNEL:	622	1,339	2,885	6,216

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: w/o Redlands Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	40,701 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,519 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.72	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-10.18	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.36	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	68.6	67.2	65.4	72.4	72.7
Medium Trucks:	68.9	68.8	64.2	64.7	71.8	72.0
Heavy Trucks:	71.7	71.2	69.6	67.9	74.9	75.2
Vehicle Noise:	74.9	74.5	72.3	71.0	78.0	78.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	315	679	1,462	3,151
CNEL:	330	711	1,532	3,301

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: w/o Redlands Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	42,573 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,635 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	88.03%
Medium Trucks:	72.6%	6.2%	21.2%	6.79%
Heavy Trucks:	65.4%	11.5%	23.1%	5.18%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.95	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-10.18	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.36	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.4	68.8	67.4	65.6	72.6	72.9
Medium Trucks:	68.9	68.8	64.2	64.7	71.8	72.0
Heavy Trucks:	71.7	71.2	69.6	67.9	74.9	75.2
Vehicle Noise:	75.0	74.5	72.4	71.1	78.1	78.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	318	685	1,476	3,181
CNEL:	333	718	1,547	3,333

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: w/o Redlands Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	103,822 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,427 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.79	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-6.11	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.29	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.2	72.7	71.2	69.5	76.4	76.8
Medium Trucks:	73.0	72.9	68.2	68.8	75.9	76.1
Heavy Trucks:	75.8	75.2	73.7	72.0	79.0	79.3
Vehicle Noise:	79.0	78.5	76.4	75.1	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	588	1,267	2,730	5,882
CNEL:	616	1,328	2,861	6,163

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: w/o Redlands Av.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	105,694 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,542 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.70%
Medium Trucks:	72.6%	6.2%	21.2%	6.98%
Heavy Trucks:	65.4%	11.5%	23.1%	5.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.88	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-6.11	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.29	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.3	72.8	71.3	69.6	76.5	76.9
Medium Trucks:	73.0	72.9	68.2	68.8	75.9	76.1
Heavy Trucks:	75.8	75.2	73.7	72.0	79.0	79.3
Vehicle Noise:	79.0	78.6	76.4	75.1	82.1	82.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	590	1,272	2,741	5,904
CNEL:	619	1,333	2,871	6,186

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: w/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	43,336 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,683 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	1.00	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-9.91	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.09	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	68.9	67.4	65.7	72.6	73.0
Medium Trucks:	69.2	69.1	64.4	65.0	72.1	72.3
Heavy Trucks:	72.0	71.5	69.9	68.2	75.2	75.5
Vehicle Noise:	75.2	74.7	72.6	71.3	78.3	78.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	329	708	1,525	3,285
CNEL:	344	742	1,598	3,442

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: w/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	44,776 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,772 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.88%
Medium Trucks:	72.6%	6.2%	21.2%	6.88%
Heavy Trucks:	65.4%	11.5%	23.1%	5.24%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	1.16	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-9.91	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.09	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	69.0	67.6	65.8	72.8	73.1
Medium Trucks:	69.2	69.1	64.4	65.0	72.1	72.3
Heavy Trucks:	72.0	71.5	69.9	68.2	75.2	75.5
Vehicle Noise:	75.2	74.8	72.6	71.3	78.3	78.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	331	713	1,535	3,308
CNEL:	347	747	1,609	3,466

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: w/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	108,108 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,692 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.97	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-5.94	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.12	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.4	72.8	71.4	69.6	76.6	77.0
Medium Trucks:	73.2	73.1	68.4	69.0	76.1	76.3
Heavy Trucks:	76.0	75.4	73.9	72.1	79.1	79.5
Vehicle Noise:	79.2	78.7	76.5	75.2	82.3	82.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	604	1,302	2,805	6,043
CNEL:	633	1,364	2,939	6,332

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: w/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	109,549 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,781 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.64%
Medium Trucks:	72.6%	6.2%	21.2%	7.01%
Heavy Trucks:	65.4%	11.5%	23.1%	5.35%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	5.03	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-5.94	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.12	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.5	72.9	71.5	69.7	76.7	77.0
Medium Trucks:	73.2	73.1	68.4	69.0	76.1	76.3
Heavy Trucks:	76.0	75.4	73.9	72.1	79.1	79.5
Vehicle Noise:	79.2	78.7	76.6	75.3	82.3	82.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	606	1,306	2,813	6,060
CNEL:	635	1,368	2,947	6,349

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Ramona Expy.
Road Segment: e/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,425 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,007 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.26	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-11.17	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-12.34	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	67.6	66.2	64.4	71.4	71.7
Medium Trucks:	67.9	67.8	63.2	63.7	70.8	71.0
Heavy Trucks:	70.7	70.2	68.7	66.9	73.9	74.2
Vehicle Noise:	73.9	73.5	71.3	70.0	77.0	77.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	271	583	1,257	2,708
CNEL:	284	611	1,317	2,837

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EP
Road Name: Ramona Expy.
Road Segment: e/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	33,001 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	2,043 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.69%
Medium Trucks:	72.6%	6.2%	21.2%	6.98%
Heavy Trucks:	65.4%	11.5%	23.1%	5.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.18	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-11.17	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-12.34	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.3	67.7	66.3	64.5	71.5	71.8
Medium Trucks:	67.9	67.8	63.2	63.7	70.8	71.0
Heavy Trucks:	70.7	70.2	68.7	66.9	73.9	74.2
Vehicle Noise:	73.9	73.5	71.3	70.0	77.1	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	272	586	1,261	2,718
CNEL:	285	613	1,322	2,848

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAC
Road Name: Ramona Expy.
Road Segment: e/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	98,958 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,125 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.48%
Medium Trucks:	72.6%	6.2%	21.2%	7.11%
Heavy Trucks:	65.4%	11.5%	23.1%	5.42%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.58	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-6.32	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.50	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.0	72.5	71.0	69.3	76.2	76.6
Medium Trucks:	72.8	72.7	68.0	68.6	75.7	75.9
Heavy Trucks:	75.6	75.0	73.5	71.8	78.7	79.1
Vehicle Noise:	78.8	78.3	76.2	74.9	81.9	82.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	570	1,227	2,644	5,697
CNEL:	597	1,286	2,771	5,969

Tuesday, October 10, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: EAPC
Road Name: Ramona Expy.
Road Segment: e/o Evans Rd.
Project Name: Perris Gateway
Job Number: 15495

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	99,534 vehicles
Peak Hour Percentage:	6.19%
Peak Hour Volume:	6,161 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	124 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	92.0 feet
Centerline Dist. to Observer:	92.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	65.0%	11.6%	23.3%	87.55%
Medium Trucks:	72.6%	6.2%	21.2%	7.07%
Heavy Trucks:	65.4%	11.5%	23.1%	5.39%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	68.154
Medium Trucks:	68.024
Heavy Trucks:	68.037

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.61	-2.12	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-6.32	-2.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-7.50	-2.11	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.1	72.5	71.0	69.3	76.3	76.6
Medium Trucks:	72.8	72.7	68.0	68.6	75.7	75.9
Heavy Trucks:	75.6	75.0	73.5	71.8	78.7	79.1
Vehicle Noise:	78.8	78.3	76.2	74.9	81.9	82.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	570	1,229	2,648	5,704
CNEL:	598	1,288	2,774	5,976

Tuesday, October 10, 2023

APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS (LMAX)

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15495 - Perris Gateway

CadnaA Noise Prediction Model: 15495_03.cna
Date: 10.10.23
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	63.0	56.4	64.2	80.0	60.0	0.0				5.00	a	6259935.79	2252783.77	5.00
RECEIVERS		R2	59.1	48.9	58.5	80.0	60.0	0.0				5.00	a	6260312.89	2252776.03	5.00
RECEIVERS		R3	52.6	44.3	52.9	80.0	60.0	0.0				5.00	a	6260559.04	2251289.80	5.00
RECEIVERS		R4	53.8	43.8	53.2	80.0	60.0	0.0				5.00	a	6259825.35	2250569.24	5.00
RECEIVERS		R5	55.4	45.3	54.8	80.0	60.0	0.0				5.00	a	6259205.61	2250557.91	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC01	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258409.88	2252669.98	25.00
POINTSOURCE		AC02	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258325.55	2252670.65	25.00
POINTSOURCE		AC03	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258175.18	2252630.01	25.00
POINTSOURCE		AC04	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258104.06	2252630.01	25.00
POINTSOURCE		AC05	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258022.10	2252633.06	25.00
POINTSOURCE		AC06	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6257957.42	2252634.08	25.00
POINTSOURCE		AC07	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258702.49	2252529.43	25.00
POINTSOURCE		AC08	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258638.48	2252529.09	25.00
POINTSOURCE		AC09	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259032.01	2252682.85	25.00
POINTSOURCE		AC10	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258941.25	2252693.68	25.00
POINTSOURCE		AC11	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258898.58	2252684.88	25.00
POINTSOURCE		AC12	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6258826.10	2252687.25	25.00
POINTSOURCE		AC13	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259144.79	2252519.95	25.00
POINTSOURCE		AC14	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259145.13	2252561.26	25.00
POINTSOURCE		AC15	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259423.17	2252690.97	25.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC16	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259345.62	2252691.31	25.00
POINTSOURCE		AC17	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259480.07	2252547.72	25.00
POINTSOURCE		AC18	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259416.06	2252550.43	25.00
POINTSOURCE		AC19	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259582.69	2252514.87	25.00
POINTSOURCE		AC20	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259584.38	2252550.09	25.00
POINTSOURCE		AC21	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259752.02	2252676.41	25.00
POINTSOURCE		AC22	89.4	89.4	89.4	Lw	89.4		585.00	0.00	252.00	5.00	g	6259705.62	2252676.07	25.00
POINTSOURCE		CAR001	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6257932.69	2252543.31	5.00
POINTSOURCE		CAR002	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6257961.14	2252520.28	5.00
POINTSOURCE		CAR003	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6257993.65	2252540.60	5.00
POINTSOURCE		CAR004	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258028.20	2252521.64	5.00
POINTSOURCE		CAR005	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258059.70	2252541.62	5.00
POINTSOURCE		CAR006	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258091.87	2252519.27	5.00
POINTSOURCE		CAR007	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258120.32	2252539.93	5.00
POINTSOURCE		CAR008	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258151.14	2252518.93	5.00
POINTSOURCE		CAR009	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258180.94	2252539.93	5.00
POINTSOURCE		CAR010	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258169.76	2252590.39	5.00
POINTSOURCE		CAR011	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258138.27	2252590.39	5.00
POINTSOURCE		CAR012	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258108.80	2252590.73	5.00
POINTSOURCE		CAR013	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258019.73	2252592.42	5.00
POINTSOURCE		CAR014	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6257979.09	2252592.76	5.00
POINTSOURCE		CAR015	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6257948.61	2252592.42	5.00
POINTSOURCE		CAR016	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258508.43	2252518.25	5.00
POINTSOURCE		CAR017	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258506.40	2252552.12	5.00
POINTSOURCE		CAR018	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258507.75	2252576.16	5.00
POINTSOURCE		CAR019	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258508.09	2252603.60	5.00
POINTSOURCE		CAR020	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258442.05	2252620.19	5.00
POINTSOURCE		CAR021	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258403.44	2252620.19	5.00
POINTSOURCE		CAR022	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258368.22	2252621.21	5.00
POINTSOURCE		CAR023	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258329.28	2252622.56	5.00
POINTSOURCE		CAR024	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258297.44	2252620.87	5.00
POINTSOURCE		CAR025	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258291.68	2252643.22	5.00
POINTSOURCE		CAR026	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258291.01	2252665.23	5.00
POINTSOURCE		CAR027	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258292.36	2252690.30	5.00
POINTSOURCE		CAR028	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258732.97	2252538.91	5.00
POINTSOURCE		CAR029	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258695.04	2252594.45	5.00
POINTSOURCE		CAR030	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258662.52	2252590.39	5.00
POINTSOURCE		CAR031	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258631.03	2252587.00	5.00
POINTSOURCE		CAR032	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258608.68	2252649.66	5.00
POINTSOURCE		CAR033	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258608.34	2252684.54	5.00
POINTSOURCE		CAR034	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258608.34	2252719.08	5.00
POINTSOURCE		CAR035	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258646.95	2252654.74	5.00
POINTSOURCE		CAR036	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258673.02	2252675.06	5.00
POINTSOURCE		CAR037	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258649.66	2252698.76	5.00
POINTSOURCE		CAR038	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258673.70	2252725.18	5.00
POINTSOURCE		CAR039	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258706.55	2252643.56	5.00
POINTSOURCE		CAR040	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258733.65	2252654.40	5.00
POINTSOURCE		CAR041	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258707.23	2252672.69	5.00
POINTSOURCE		CAR042	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258735.34	2252687.59	5.00
POINTSOURCE		CAR043	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258709.94	2252707.57	5.00
POINTSOURCE		CAR044	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258736.02	2252724.16	5.00
POINTSOURCE		CAR045	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258787.49	2252506.06	5.00
POINTSOURCE		CAR046	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258769.54	2252570.75	5.00
POINTSOURCE		CAR047	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258795.28	2252557.88	5.00
POINTSOURCE		CAR048	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258796.64	2252586.66	5.00
POINTSOURCE		CAR049	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258863.02	2252550.43	5.00
POINTSOURCE		CAR050	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258842.02	2252568.04	5.00
POINTSOURCE		CAR051	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258864.37	2252583.62	5.00
POINTSOURCE		CAR052	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258935.15	2252559.23	5.00
POINTSOURCE		CAR053	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258904.67	2252576.16	5.00
POINTSOURCE		CAR054	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258935.49	2252586.32	5.00
POINTSOURCE		CAR055	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258888.42	2252636.11	5.00
POINTSOURCE		CAR056	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258855.23	2252636.45	5.00
POINTSOURCE		CAR057	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258827.12	2252636.79	5.00
POINTSOURCE		CAR058	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258798.33	2252636.79	5.00
POINTSOURCE		CAR059	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258771.24	2252673.02	5.00
POINTSOURCE		CAR060	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258772.59	2252698.09	5.00
POINTSOURCE		CAR061	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258772.93	2252725.18	5.00
POINTSOURCE		CAR062	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258824.41	2252727.89	5.00
POINTSOURCE		CAR063	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258858.28	2252727.55	5.00
POINTSOURCE		CAR064	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258888.08	2252726.87	5.00
POINTSOURCE		CAR065	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258935.83	2252728.23	5.00
POINTSOURCE		CAR066	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258961.91	2252726.87	5.00
POINTSOURCE		CAR067	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258990.02	2252727.89	5.00
POINTSOURCE		CAR068	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259015.76	2252727.21	5.00
POINTSOURCE		CAR069	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258858.28	2252506.06	5.00
POINTSOURCE		CAR070	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258894.85	2252504.37	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		CAR071	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258941.25	2252503.69	5.00
POINTSOURCE		CAR072	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258968.68	2252503.01	5.00
POINTSOURCE		CAR073	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259005.93	2252502.00	5.00
POINTSOURCE		CAR074	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259041.16	2252502.00	5.00
POINTSOURCE		CAR075	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258976.13	2252547.38	5.00
POINTSOURCE		CAR076	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258975.12	2252583.62	5.00
POINTSOURCE		CAR077	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258998.48	2252564.65	5.00
POINTSOURCE		CAR078	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259035.40	2252547.04	5.00
POINTSOURCE		CAR079	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259057.41	2252563.63	5.00
POINTSOURCE		CAR080	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259035.40	2252582.60	5.00
POINTSOURCE		CAR081	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6258987.31	2252634.08	5.00
POINTSOURCE		CAR082	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259023.21	2252632.04	5.00
POINTSOURCE		CAR083	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259051.66	2252632.38	5.00
POINTSOURCE		CAR084	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259063.17	2252668.62	5.00
POINTSOURCE		CAR085	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259062.49	2252694.36	5.00
POINTSOURCE		CAR086	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259062.15	2252719.76	5.00
POINTSOURCE		CAR087	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259104.15	2252561.26	5.00
POINTSOURCE		CAR088	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259137.00	2252589.03	5.00
POINTSOURCE		CAR089	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259109.23	2252588.70	5.00
POINTSOURCE		CAR090	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259118.03	2252656.77	5.00
POINTSOURCE		CAR091	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259138.02	2252626.96	5.00
POINTSOURCE		CAR092	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259155.29	2252656.77	5.00
POINTSOURCE		CAR093	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259173.58	2252626.96	5.00
POINTSOURCE		CAR094	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259192.20	2252657.78	5.00
POINTSOURCE		CAR095	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259192.88	2252698.76	5.00
POINTSOURCE		CAR096	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259192.20	2252726.19	5.00
POINTSOURCE		CAR097	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259165.11	2252700.12	5.00
POINTSOURCE		CAR098	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259155.63	2252726.53	5.00
POINTSOURCE		CAR099	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259130.90	2252699.78	5.00
POINTSOURCE		CAR100	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259119.39	2252727.21	5.00
POINTSOURCE		CAR101	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259245.03	2252693.34	5.00
POINTSOURCE		CAR102	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259244.70	2252718.41	5.00
POINTSOURCE		CAR103	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259268.74	2252492.85	5.00
POINTSOURCE		CAR104	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259302.95	2252491.50	5.00
POINTSOURCE		CAR105	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259330.04	2252491.50	5.00
POINTSOURCE		CAR106	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259381.86	2252524.01	5.00
POINTSOURCE		CAR107	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259381.86	2252550.09	5.00
POINTSOURCE		CAR108	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259330.38	2252526.04	5.00
POINTSOURCE		CAR109	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259314.46	2252536.20	5.00
POINTSOURCE		CAR110	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259295.16	2252526.04	5.00
POINTSOURCE		CAR111	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259276.19	2252535.86	5.00
POINTSOURCE		CAR112	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259320.56	2252573.79	5.00
POINTSOURCE		CAR113	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259289.40	2252572.78	5.00
POINTSOURCE		CAR114	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259257.90	2252573.12	5.00
POINTSOURCE		CAR115	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259587.09	2252584.63	5.00
POINTSOURCE		CAR116	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259559.66	2252583.62	5.00
POINTSOURCE		CAR117	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259556.61	2252650.33	5.00
POINTSOURCE		CAR118	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259556.95	2252678.44	5.00
POINTSOURCE		CAR119	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259555.93	2252704.18	5.00
POINTSOURCE		CAR120	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259597.25	2252643.56	5.00
POINTSOURCE		CAR121	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259621.30	2252661.17	5.00
POINTSOURCE		CAR122	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259597.93	2252677.09	5.00
POINTSOURCE		CAR123	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259621.97	2252693.68	5.00
POINTSOURCE		CAR124	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259598.60	2252715.70	5.00
POINTSOURCE		CAR125	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259672.43	2252684.20	5.00
POINTSOURCE		CAR126	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259671.76	2252652.03	5.00
POINTSOURCE		CAR127	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259709.01	2252627.30	5.00
POINTSOURCE		CAR128	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259747.96	2252626.96	5.00
POINTSOURCE		CAR129	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259808.92	2252641.53	5.00
POINTSOURCE		CAR130	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259809.93	2252672.69	5.00
POINTSOURCE		CAR131	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259810.61	2252706.21	5.00
POINTSOURCE		CAR132	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259740.51	2252726.19	5.00
POINTSOURCE		CAR133	91.4	91.4	91.4	Lw	91.4		900.00	0.00	270.00	5.00	a	6259709.69	2252726.53	5.00
POINTSOURCE		DT01	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6258198.55	2252627.64	3.00
POINTSOURCE		DT02	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6258048.52	2252628.32	3.00
POINTSOURCE		DT03	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6258661.85	2252562.62	3.00
POINTSOURCE		DT04	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6259136.66	2252502.00	3.00
POINTSOURCE		DT05	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6259510.55	2252547.72	3.00
POINTSOURCE		DT06	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6259495.99	2252547.72	3.00
POINTSOURCE		DT07	86.5	86.5	86.5	Lw	86.5		900.00	0.00	270.00	3.00	a	6259575.58	2252490.82	3.00
POINTSOURCE		GAS01	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258429.52	2252537.90	5.00
POINTSOURCE		GAS02	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258427.15	2252560.92	5.00
POINTSOURCE		GAS03	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258399.04	2252537.22	5.00
POINTSOURCE		GAS04	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258399.72	2252562.62	5.00
POINTSOURCE		GAS05	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258371.95	2252536.88	5.00
POINTSOURCE		GAS06	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258372.29	2252562.96	5.00
POINTSOURCE		GAS07	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258344.52	2252535.86	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		GAS08	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258344.18	2252562.62	5.00
POINTSOURCE		GAS09	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258315.73	2252536.54	5.00
POINTSOURCE		GAS10	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6258316.41	2252563.97	5.00
POINTSOURCE		GAS11	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6259757.10	2252551.78	5.00
POINTSOURCE		GAS12	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6259757.44	2252576.84	5.00
POINTSOURCE		GAS13	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6259721.88	2252578.20	5.00
POINTSOURCE		GAS14	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6259721.54	2252552.46	5.00
POINTSOURCE		GAS15	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6259685.64	2252552.80	5.00
POINTSOURCE		GAS16	86.1	86.1	86.1	Lw	86.1		900.00	0.00	270.00	5.00	a	6259685.30	2252578.20	5.00
POINTSOURCE		SEAT01	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258430.88	2252650.67	5.00
POINTSOURCE		SEAT02	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258430.54	2252664.90	5.00
POINTSOURCE		SEAT03	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258430.54	2252675.73	5.00
POINTSOURCE		SEAT04	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258707.91	2252559.57	5.00
POINTSOURCE		SEAT05	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258696.39	2252559.57	5.00
POINTSOURCE		SEAT06	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258678.44	2252559.57	5.00
POINTSOURCE		SEAT07	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258808.49	2252686.57	5.00
POINTSOURCE		SEAT08	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258797.65	2252701.13	5.00
POINTSOURCE		SEAT09	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258809.17	2252711.97	5.00
POINTSOURCE		SEAT10	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258798.67	2252725.18	5.00
POINTSOURCE		SEAT11	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258966.31	2252656.09	5.00
POINTSOURCE		SEAT12	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258960.21	2252669.98	5.00
POINTSOURCE		SEAT13	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258953.10	2252654.74	5.00
POINTSOURCE		SEAT14	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258947.01	2252670.31	5.00
POINTSOURCE		SEAT15	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258939.22	2252656.43	5.00
POINTSOURCE		SEAT16	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6258934.14	2252669.98	5.00
POINTSOURCE		SEAT17	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259102.79	2252514.87	5.00
POINTSOURCE		SEAT18	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259116.34	2252514.53	5.00
POINTSOURCE		SEAT19	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259116.00	2252521.64	5.00
POINTSOURCE		SEAT20	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259102.79	2252520.96	5.00
POINTSOURCE		SEAT21	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259116.68	2252527.40	5.00
POINTSOURCE		SEAT22	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259103.13	2252527.73	5.00
POINTSOURCE		SEAT23	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259457.72	2252522.99	5.00
POINTSOURCE		SEAT24	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259450.27	2252523.33	5.00
POINTSOURCE		SEAT25	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259442.48	2252523.33	5.00
POINTSOURCE		SEAT26	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259434.69	2252523.67	5.00
POINTSOURCE		SEAT27	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259559.32	2252510.46	5.00
POINTSOURCE		SEAT28	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259559.32	2252517.91	5.00
POINTSOURCE		SEAT29	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259559.66	2252524.69	5.00
POINTSOURCE		SEAT30	97.9	97.9	97.9	Lw	97.9		900.00	0.00	270.00	5.00	a	6259559.66	2252531.80	5.00
POINTSOURCE		STOR01	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257862.57	2252589.69	5.00
POINTSOURCE		STOR02	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257831.32	2252626.15	5.00
POINTSOURCE		STOR03	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258129.06	2252831.88	5.00
POINTSOURCE		STOR04	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258059.61	2252831.01	5.00
POINTSOURCE		STOR05	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257984.96	2252831.01	5.00
POINTSOURCE		STOR06	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257920.73	2252832.75	5.00
POINTSOURCE		STOR07	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257849.54	2252831.88	5.00
POINTSOURCE		STOR08	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257815.69	2252886.57	5.00
POINTSOURCE		STOR09	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257889.48	2252885.70	5.00
POINTSOURCE		STOR10	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257964.13	2252886.57	5.00
POINTSOURCE		STOR11	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258031.84	2252889.17	5.00
POINTSOURCE		STOR12	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257912.91	2252938.65	5.00
POINTSOURCE		STOR13	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257855.62	2252940.39	5.00
POINTSOURCE		STOR14	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257777.50	2252992.47	5.00
POINTSOURCE		STOR15	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257728.89	2252962.96	5.00
POINTSOURCE		STOR16	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257700.24	2253002.02	5.00
POINTSOURCE		STOR17	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257674.20	2253042.82	5.00
POINTSOURCE		STOR18	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257636.87	2253089.69	5.00
POINTSOURCE		STOR19	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257528.36	2253161.74	5.00
POINTSOURCE		STOR20	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257559.61	2253119.21	5.00
POINTSOURCE		STOR21	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257588.26	2253071.46	5.00
POINTSOURCE		STOR22	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257619.51	2253026.33	5.00
POINTSOURCE		STOR23	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257653.36	2252976.85	5.00
POINTSOURCE		STOR24	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257683.75	2252927.37	5.00
POINTSOURCE		STOR25	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257637.74	2252902.19	5.00
POINTSOURCE		STOR26	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257603.02	2252951.67	5.00
POINTSOURCE		STOR27	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257574.37	2252993.34	5.00
POINTSOURCE		STOR28	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257542.25	2253042.82	5.00
POINTSOURCE		STOR29	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257512.74	2253083.62	5.00
POINTSOURCE		STOR30	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257479.75	2253135.70	5.00
POINTSOURCE		STOR31	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257447.64	2253188.65	5.00
POINTSOURCE		STOR32	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258218.47	2252726.85	5.00
POINTSOURCE		STOR33	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258160.31	2252728.58	5.00
POINTSOURCE		STOR34	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258101.28	2252729.45	5.00
POINTSOURCE		STOR35	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6258038.78	2252730.32	5.00
POINTSOURCE		STOR36	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257978.89	2252730.32	5.00
POINTSOURCE		STOR37	115.7	115.7	115.7	Lw	115.7		900.00	0.00	0.00	5.00	a	6257918.99	2252731.19	5.00
POINTSOURCE		TRASH01	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258224.54	2252794.56	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		TRASH02	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258189.74	2252590.73	5.00
POINTSOURCE		TRASH03	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258038.02	2252593.78	5.00
POINTSOURCE		TRASH04	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258497.25	2252711.63	5.00
POINTSOURCE		TRASH05	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258483.37	2252711.63	5.00
POINTSOURCE		TRASH06	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258764.80	2252503.69	5.00
POINTSOURCE		TRASH07	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6258906.03	2252726.53	5.00
POINTSOURCE		TRASH08	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6259036.08	2252727.21	5.00
POINTSOURCE		TRASH09	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6259063.51	2252501.32	5.00
POINTSOURCE		TRASH10	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6259338.85	2252588.70	5.00
POINTSOURCE		TRASH11	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6259518.68	2252714.68	5.00
POINTSOURCE		TRASH12	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6259619.94	2252631.37	5.00
POINTSOURCE		TRASH13	102.8	102.8	102.8	Lw	102.8		900.00	0.00	270.00	5.00	a	6259684.29	2252722.81	5.00
POINTSOURCE		VAC01	89.7	89.7	89.7	Lw	89.7		900.00	0.00	270.00	3.00	a	6259480.75	2252721.11	3.00
POINTSOURCE		VAC02	89.7	89.7	89.7	Lw	89.7		900.00	0.00	270.00	3.00	a	6259446.20	2252721.45	3.00
POINTSOURCE		VAC03	89.7	89.7	89.7	Lw	89.7		900.00	0.00	270.00	3.00	a	6259405.23	2252721.79	3.00
POINTSOURCE		VAC04	89.7	89.7	89.7	Lw	89.7		900.00	0.00	270.00	3.00	a	6259366.96	2252722.13	3.00
POINTSOURCE		VAC05	89.7	89.7	89.7	Lw	89.7		900.00	0.00	270.00	3.00	a	6259327.67	2252722.13	3.00
POINTSOURCE		VAC06	89.7	89.7	89.7	Lw	89.7		900.00	0.00	270.00	3.00	a	6259299.22	2252722.81	3.00
POINTSOURCE		WASH01	111.0	111.0	111.0	Lw	111.0		900.00	0.00	270.00	8.00	a	6259456.19	2252670.62	8.00
POINTSOURCE		WASH02	111.0	111.0	111.0	Lw	111.0		900.00	0.00	270.00	8.00	a	6259324.94	2252672.00	8.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
				left	right		horz.	vert.	Begin		End		x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING			0						12.00	a			6258573.22	2252792.38	12.00	0.00
													6259823.22	2252783.27	12.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00006	x	0		20.00	a	6259693.77	2252703.50	20.00	0.00
									6259766.58	2252703.17	20.00	0.00
									6259766.25	2252650.33	20.00	0.00
									6259692.75	2252649.32	20.00	0.00
BUILDING			BUILDING00007	x	0		20.00	a	6259570.50	2252561.60	20.00	0.00
									6259600.30	2252561.60	20.00	0.00
									6259599.96	2252499.63	20.00	0.00
									6259563.04	2252500.30	20.00	0.00
									6259563.72	2252538.23	20.00	0.00
									6259570.16	2252538.23	20.00	0.00
BUILDING			BUILDING00008	x	0		20.00	a	6259325.30	2252686.23	20.00	0.00
									6259332.75	2252685.55	20.00	0.00
									6259333.43	2252701.13	20.00	0.00
									6259401.50	2252698.42	20.00	0.00
									6259401.50	2252701.47	20.00	0.00
									6259448.57	2252700.79	20.00	0.00
									6259447.90	2252684.54	20.00	0.00
									6259456.03	2252684.20	20.00	0.00
									6259456.36	2252656.77	20.00	0.00
									6259324.62	2252659.48	20.00	0.00
BUILDING			BUILDING00009	x	0		20.00	a	6259404.55	2252564.99	20.00	0.00
									6259487.18	2252563.97	20.00	0.00
									6259488.20	2252529.09	20.00	0.00
									6259427.92	2252530.44	20.00	0.00
									6259427.24	2252535.86	20.00	0.00
									6259404.21	2252536.88	20.00	0.00
BUILDING			BUILDING00010	x	0		20.00	a	6259122.10	2252570.41	20.00	0.00
									6259166.46	2252569.73	20.00	0.00
									6259166.13	2252509.11	20.00	0.00
									6259121.76	2252509.79	20.00	0.00
BUILDING			BUILDING00011	x	0		20.00	a	6258813.57	2252714.34	20.00	0.00
									6258913.14	2252713.33	20.00	0.00
									6258912.80	2252656.43	20.00	0.00
									6258812.89	2252658.12	20.00	0.00
BUILDING			BUILDING00012	x	0		20.00	a	6258930.41	2252711.97	20.00	0.00
									6259044.54	2252710.62	20.00	0.00
									6259043.19	2252654.06	20.00	0.00
									6258975.12	2252654.40	20.00	0.00
									6258974.10	2252674.04	20.00	0.00
									6258930.07	2252675.73	20.00	0.00
BUILDING			BUILDING00013	x	0		20.00	a	6258630.01	2252547.04	20.00	0.00
									6258670.31	2252546.70	20.00	0.00
									6258670.31	2252550.09	20.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6258710.95	2252550.09	20.00	0.00
									6258710.95	2252509.79	20.00	0.00
									6258639.83	2252510.12	20.00	0.00
									6258629.00	2252519.95	20.00	0.00
BUILDING			BUILDING00014	x	0		20.00	a	6258313.70	2252701.13	20.00	0.00
									6258418.35	2252699.78	20.00	0.00
									6258417.33	2252642.20	20.00	0.00
									6258313.36	2252642.88	20.00	0.00
BUILDING			BUILDING00015	x	0		20.00	a	6257947.93	2252652.70	20.00	0.00
									6258032.26	2252652.70	20.00	0.00
									6258031.59	2252613.76	20.00	0.00
									6257948.27	2252614.77	20.00	0.00
BUILDING			BUILDING00016	x	0		20.00	a	6258092.55	2252649.99	20.00	0.00
									6258186.36	2252649.99	20.00	0.00
									6258185.00	2252609.69	20.00	0.00
									6258093.22	2252611.05	20.00	0.00
BUILDING			BUILDING00017	x	0		20.00	a	6257445.90	2253212.96	20.00	0.00
									6257471.07	2253226.85	20.00	0.00
									6257531.84	2253132.23	20.00	0.00
									6257504.93	2253119.21	20.00	0.00
BUILDING			BUILDING00018	x	0		20.00	a	6257400.76	2253181.71	20.00	0.00
									6257425.07	2253197.33	20.00	0.00
									6257484.09	2253100.11	20.00	0.00
									6257459.79	2253087.96	20.00	0.00
BUILDING			BUILDING00019	x	0		20.00	a	6257465.86	2253076.67	20.00	0.00
									6257491.91	2253092.30	20.00	0.00
									6257554.41	2252998.55	20.00	0.00
									6257528.36	2252983.79	20.00	0.00
BUILDING			BUILDING00020	x	0		20.00	a	6257512.74	2253108.79	20.00	0.00
									6257539.65	2253124.42	20.00	0.00
									6257598.68	2253029.80	20.00	0.00
									6257574.37	2253015.91	20.00	0.00
BUILDING			BUILDING00021	x	0		20.00	a	6257577.84	2253110.53	20.00	0.00
									6257601.28	2253123.55	20.00	0.00
									6257643.82	2253059.31	20.00	0.00
									6257618.64	2253043.69	20.00	0.00
BUILDING			BUILDING00022	x	0		20.00	a	6257692.43	2253032.40	20.00	0.00
									6257719.34	2253048.03	20.00	0.00
									6257761.00	2252988.13	20.00	0.00
									6257735.83	2252970.77	20.00	0.00
BUILDING			BUILDING00023	x	0		20.00	a	6257625.59	2253035.87	20.00	0.00
									6257650.76	2253051.50	20.00	0.00
									6257714.13	2252956.88	20.00	0.00
									6257688.95	2252942.12	20.00	0.00
BUILDING			BUILDING00024	x	0		20.00	a	6257582.18	2253004.62	20.00	0.00
									6257604.75	2253022.85	20.00	0.00
									6257668.99	2252929.97	20.00	0.00
									6257643.82	2252914.35	20.00	0.00
BUILDING			BUILDING00025	x	0		20.00	a	6257534.44	2252975.98	20.00	0.00
									6257559.61	2252990.74	20.00	0.00
									6257622.98	2252902.19	20.00	0.00
									6257600.41	2252883.96	20.00	0.00
BUILDING			BUILDING00026	x	0		20.00	a	6257629.06	2252873.55	20.00	0.00
									6257721.94	2252934.31	20.00	0.00
									6257741.04	2252912.61	20.00	0.00
									6257645.55	2252850.11	20.00	0.00
BUILDING			BUILDING00027	x	0		20.00	a	6257732.36	2252942.12	20.00	0.00
									6257801.80	2252986.40	20.00	0.00
									6257818.29	2252962.96	20.00	0.00
									6257747.98	2252917.82	20.00	0.00
BUILDING			BUILDING00028	x	0		20.00	a	6257813.09	2252926.50	20.00	0.00
									6257925.07	2252927.37	20.00	0.00
									6257925.93	2252896.99	20.00	0.00
									6257813.09	2252899.59	20.00	0.00
BUILDING			BUILDING00029	x	0		20.00	a	6257936.35	2252926.50	20.00	0.00
									6257976.28	2252925.63	20.00	0.00
									6257976.28	2252896.12	20.00	0.00
									6257936.35	2252897.85	20.00	0.00
BUILDING			BUILDING00030	x	0		20.00	a	6257789.65	2252872.68	20.00	0.00
									6257903.36	2252873.55	20.00	0.00
									6257903.36	2252844.90	20.00	0.00
									6257788.78	2252847.51	20.00	0.00
BUILDING			BUILDING00031	x	0		20.00	a	6257913.78	2252872.68	20.00	0.00
									6258027.50	2252872.68	20.00	0.00
									6258027.50	2252840.56	20.00	0.00
									6257913.78	2252845.77	20.00	0.00
BUILDING			BUILDING00032	x	0		20.00	a	6258038.78	2252872.68	20.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6258094.34	2252871.81	20.00	0.00
									6258099.54	2252844.03	20.00	0.00
									6258041.39	2252842.30	20.00	0.00
BUILDING			BUILDING00033	x	0		20.00	a	6258087.39	2252817.12	20.00	0.00
									6258155.97	2252816.26	20.00	0.00
									6258157.70	2252787.61	20.00	0.00
									6258087.39	2252789.35	20.00	0.00
BUILDING			BUILDING00034	x	0		20.00	a	6257961.52	2252818.86	20.00	0.00
									6258077.84	2252817.99	20.00	0.00
									6258078.71	2252787.61	20.00	0.00
									6257962.39	2252790.21	20.00	0.00
BUILDING			BUILDING00035	x	0		20.00	a	6257836.52	2252820.60	20.00	0.00
									6257952.84	2252819.73	20.00	0.00
									6257952.84	2252790.21	20.00	0.00
									6257838.26	2252792.82	20.00	0.00
BUILDING			BUILDING00036	x	0		20.00	a	6257651.63	2252813.65	20.00	0.00
									6257715.00	2252856.19	20.00	0.00
									6257736.70	2252831.01	20.00	0.00
									6257752.32	2252840.56	20.00	0.00
									6257855.62	2252705.15	20.00	0.00
									6257789.65	2252661.74	20.00	0.00
									6257769.68	2252689.52	20.00	0.00
									6257753.19	2252679.10	20.00	0.00
BUILDING			BUILDING00037	x	0		20.00	a	6257792.25	2252622.68	20.00	0.00
									6257807.88	2252635.70	20.00	0.00
									6257875.59	2252551.50	20.00	0.00
									6257859.96	2252540.21	20.00	0.00
BUILDING			BUILDING00038	x	0		20.00	a	6257831.32	2252641.78	20.00	0.00
									6257846.94	2252657.40	20.00	0.00
									6257894.68	2252595.77	20.00	0.00
									6257879.93	2252584.49	20.00	0.00
BUILDING			BUILDING00039	x	0		45.00	a	6257598.83	2254920.85	45.00	0.00
									6258411.33	2254920.85	45.00	0.00
									6258404.39	2254813.21	45.00	0.00
									6258341.89	2254816.69	45.00	0.00
									6258338.42	2253816.69	45.00	0.00
									6257571.05	2253816.69	45.00	0.00
									6257571.05	2253938.21	45.00	0.00
									6257633.55	2253938.21	45.00	0.00
									6257650.92	2254813.21	45.00	0.00
									6257598.83	2254802.80	45.00	0.00
BUILDING			BUILDING00040	x	0		45.00	a	6258775.92	2254299.32	45.00	0.00
									6259630.08	2254295.85	45.00	0.00
									6259623.14	2254167.38	45.00	0.00
									6259567.58	2254174.32	45.00	0.00
									6259557.17	2253038.91	45.00	0.00
									6259626.61	2253045.85	45.00	0.00
									6259609.25	2252913.91	45.00	0.00
									6258775.92	2252931.27	45.00	0.00
									6258775.92	2253045.85	45.00	0.00
									6258838.42	2253045.85	45.00	0.00
									6258834.94	2254174.32	45.00	0.00
									6258786.33	2254181.27	45.00	0.00
BUILDING			BUILDING00041	x	0		45.00	a	6257612.72	2253611.82	45.00	0.00
									6257730.78	2253608.35	45.00	0.00
									6257730.78	2253559.74	45.00	0.00
									6258400.92	2253559.74	45.00	0.00
									6258400.92	2253604.88	45.00	0.00
									6258515.50	2253601.41	45.00	0.00
									6258525.92	2253094.46	45.00	0.00
									6257831.47	2253101.41	45.00	0.00
									6257623.14	2253261.13	45.00	0.00

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APPENDIX 9.2:

CADNAA OPERATIONAL NOISE MODEL INPUTS (LEQ)

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15495 - Perris Gateway

CadnaA Noise Prediction Model: 15496_03_CNEL.cna
Date: 10.10.23
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	55.5	50.9	58.1	80.0	60.0	60.0				5.00	a	6259935.79	2252783.77	5.00
RECEIVERS		R2	49.3	43.1	50.8	80.0	60.0	60.0				5.00	a	6260312.89	2252776.03	5.00
RECEIVERS		R3	43.8	38.6	46.0	80.0	60.0	60.0				5.00	a	6260559.04	2251289.80	5.00
RECEIVERS		R4	44.1	37.9	45.6	80.0	60.0	60.0				5.00	a	6259825.35	2250569.24	5.00
RECEIVERS		R5	45.7	39.6	47.2	80.0	60.0	60.0				5.00	a	6259205.61	2250557.91	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258409.88	2252669.98	25.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258325.55	2252670.65	25.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258175.18	2252630.01	25.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258104.06	2252630.01	25.00
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258022.10	2252633.06	25.00
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6257957.42	2252634.08	25.00
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258702.49	2252529.43	25.00
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258638.48	2252529.09	25.00
POINTSOURCE		AC09	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259032.01	2252682.85	25.00
POINTSOURCE		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258941.25	2252693.68	25.00
POINTSOURCE		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258898.58	2252684.88	25.00
POINTSOURCE		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6258826.10	2252687.25	25.00
POINTSOURCE		AC13	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259144.79	2252519.95	25.00
POINTSOURCE		AC14	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259145.13	2252561.26	25.00
POINTSOURCE		AC15	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259423.17	2252690.97	25.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC16	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259345.62	2252691.31	25.00
POINTSOURCE		AC17	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259480.07	2252547.72	25.00
POINTSOURCE		AC18	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259416.06	2252550.43	25.00
POINTSOURCE		AC19	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259582.69	2252514.87	25.00
POINTSOURCE		AC20	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259584.38	2252550.09	25.00
POINTSOURCE		AC21	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259752.02	2252676.41	25.00
POINTSOURCE		AC22	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6259705.62	2252676.07	25.00
POINTSOURCE		CAR001	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6257932.69	2252543.31	5.00
POINTSOURCE		CAR002	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6257961.14	2252520.28	5.00
POINTSOURCE		CAR003	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6257993.65	2252540.60	5.00
POINTSOURCE		CAR004	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258028.20	2252521.64	5.00
POINTSOURCE		CAR005	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258059.70	2252541.62	5.00
POINTSOURCE		CAR006	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258091.87	2252519.27	5.00
POINTSOURCE		CAR007	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258120.32	2252539.93	5.00
POINTSOURCE		CAR008	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258151.14	2252518.93	5.00
POINTSOURCE		CAR009	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258180.94	2252539.93	5.00
POINTSOURCE		CAR010	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258169.76	2252590.39	5.00
POINTSOURCE		CAR011	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258138.27	2252590.39	5.00
POINTSOURCE		CAR012	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258108.80	2252590.73	5.00
POINTSOURCE		CAR013	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258019.73	2252592.42	5.00
POINTSOURCE		CAR014	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6257979.09	2252592.76	5.00
POINTSOURCE		CAR015	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6257948.61	2252592.42	5.00
POINTSOURCE		CAR016	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258508.43	2252518.25	5.00
POINTSOURCE		CAR017	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258506.40	2252552.12	5.00
POINTSOURCE		CAR018	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258507.75	2252576.16	5.00
POINTSOURCE		CAR019	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258508.09	2252603.60	5.00
POINTSOURCE		CAR020	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258442.05	2252620.19	5.00
POINTSOURCE		CAR021	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258403.44	2252620.19	5.00
POINTSOURCE		CAR022	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258368.22	2252621.21	5.00
POINTSOURCE		CAR023	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258329.28	2252622.56	5.00
POINTSOURCE		CAR024	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258297.44	2252620.87	5.00
POINTSOURCE		CAR025	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258291.68	2252643.22	5.00
POINTSOURCE		CAR026	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258291.01	2252665.23	5.00
POINTSOURCE		CAR027	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258292.36	2252690.30	5.00
POINTSOURCE		CAR028	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258732.97	2252538.91	5.00
POINTSOURCE		CAR029	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258695.04	2252594.45	5.00
POINTSOURCE		CAR030	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258662.52	2252590.39	5.00
POINTSOURCE		CAR031	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258631.03	2252587.00	5.00
POINTSOURCE		CAR032	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258608.68	2252649.66	5.00
POINTSOURCE		CAR033	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258608.34	2252684.54	5.00
POINTSOURCE		CAR034	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258608.34	2252719.08	5.00
POINTSOURCE		CAR035	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258646.95	2252654.74	5.00
POINTSOURCE		CAR036	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258673.02	2252675.06	5.00
POINTSOURCE		CAR037	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258649.66	2252698.76	5.00
POINTSOURCE		CAR038	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258673.70	2252725.18	5.00
POINTSOURCE		CAR039	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258706.55	2252643.56	5.00
POINTSOURCE		CAR040	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258733.65	2252654.40	5.00
POINTSOURCE		CAR041	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258707.23	2252672.69	5.00
POINTSOURCE		CAR042	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258735.34	2252687.59	5.00
POINTSOURCE		CAR043	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258709.94	2252707.57	5.00
POINTSOURCE		CAR044	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258736.02	2252724.16	5.00
POINTSOURCE		CAR045	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258787.49	2252506.06	5.00
POINTSOURCE		CAR046	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258769.54	2252570.75	5.00
POINTSOURCE		CAR047	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258795.28	2252557.88	5.00
POINTSOURCE		CAR048	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258796.64	2252586.66	5.00
POINTSOURCE		CAR049	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258863.02	2252550.43	5.00
POINTSOURCE		CAR050	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258842.02	2252568.04	5.00
POINTSOURCE		CAR051	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258864.37	2252583.62	5.00
POINTSOURCE		CAR052	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258935.15	2252559.23	5.00
POINTSOURCE		CAR053	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258904.67	2252576.16	5.00
POINTSOURCE		CAR054	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258935.49	2252586.32	5.00
POINTSOURCE		CAR055	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258888.42	2252636.11	5.00
POINTSOURCE		CAR056	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258855.23	2252636.45	5.00
POINTSOURCE		CAR057	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258827.12	2252636.79	5.00
POINTSOURCE		CAR058	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258798.33	2252636.79	5.00
POINTSOURCE		CAR059	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258771.24	2252673.02	5.00
POINTSOURCE		CAR060	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258772.59	2252698.09	5.00
POINTSOURCE		CAR061	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258772.93	2252725.18	5.00
POINTSOURCE		CAR062	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258824.41	2252727.89	5.00
POINTSOURCE		CAR063	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258858.28	2252727.55	5.00
POINTSOURCE		CAR064	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258888.08	2252726.87	5.00
POINTSOURCE		CAR065	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258935.83	2252728.23	5.00
POINTSOURCE		CAR066	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258961.91	2252726.87	5.00
POINTSOURCE		CAR067	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258990.02	2252727.89	5.00
POINTSOURCE		CAR068	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259015.76	2252727.21	5.00
POINTSOURCE		CAR069	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258858.28	2252506.06	5.00
POINTSOURCE		CAR070	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258894.85	2252504.37	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		CAR071	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258941.25	2252503.69	5.00
POINTSOURCE		CAR072	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258968.68	2252503.01	5.00
POINTSOURCE		CAR073	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259005.93	2252502.00	5.00
POINTSOURCE		CAR074	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259041.16	2252502.00	5.00
POINTSOURCE		CAR075	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258976.13	2252547.38	5.00
POINTSOURCE		CAR076	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258975.12	2252583.62	5.00
POINTSOURCE		CAR077	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258998.48	2252564.65	5.00
POINTSOURCE		CAR078	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259035.40	2252547.04	5.00
POINTSOURCE		CAR079	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259057.41	2252563.63	5.00
POINTSOURCE		CAR080	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259035.40	2252582.60	5.00
POINTSOURCE		CAR081	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6258987.31	2252634.08	5.00
POINTSOURCE		CAR082	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259023.21	2252632.04	5.00
POINTSOURCE		CAR083	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259051.66	2252632.38	5.00
POINTSOURCE		CAR084	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259063.17	2252668.62	5.00
POINTSOURCE		CAR085	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259062.49	2252694.36	5.00
POINTSOURCE		CAR086	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259062.15	2252719.76	5.00
POINTSOURCE		CAR087	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259104.15	2252561.26	5.00
POINTSOURCE		CAR088	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259137.00	2252589.03	5.00
POINTSOURCE		CAR089	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259109.23	2252588.70	5.00
POINTSOURCE		CAR090	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259118.03	2252656.77	5.00
POINTSOURCE		CAR091	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259138.02	2252626.96	5.00
POINTSOURCE		CAR092	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259155.29	2252656.77	5.00
POINTSOURCE		CAR093	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259173.58	2252626.96	5.00
POINTSOURCE		CAR094	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259192.20	2252657.78	5.00
POINTSOURCE		CAR095	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259192.88	2252698.76	5.00
POINTSOURCE		CAR096	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259192.20	2252726.19	5.00
POINTSOURCE		CAR097	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259165.11	2252700.12	5.00
POINTSOURCE		CAR098	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259155.63	2252726.53	5.00
POINTSOURCE		CAR099	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259130.90	2252699.78	5.00
POINTSOURCE		CAR100	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259119.39	2252727.21	5.00
POINTSOURCE		CAR101	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259245.03	2252693.34	5.00
POINTSOURCE		CAR102	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259244.70	2252718.41	5.00
POINTSOURCE		CAR103	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259268.74	2252492.85	5.00
POINTSOURCE		CAR104	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259302.95	2252491.50	5.00
POINTSOURCE		CAR105	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259330.04	2252491.50	5.00
POINTSOURCE		CAR106	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259381.86	2252524.01	5.00
POINTSOURCE		CAR107	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259381.86	2252550.09	5.00
POINTSOURCE		CAR108	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259330.38	2252526.04	5.00
POINTSOURCE		CAR109	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259314.46	2252536.20	5.00
POINTSOURCE		CAR110	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259295.16	2252526.04	5.00
POINTSOURCE		CAR111	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259276.19	2252535.86	5.00
POINTSOURCE		CAR112	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259320.56	2252573.79	5.00
POINTSOURCE		CAR113	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259289.40	2252572.78	5.00
POINTSOURCE		CAR114	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259257.90	2252573.12	5.00
POINTSOURCE		CAR115	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259587.09	2252584.63	5.00
POINTSOURCE		CAR116	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259559.66	2252583.62	5.00
POINTSOURCE		CAR117	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259556.61	2252650.33	5.00
POINTSOURCE		CAR118	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259556.95	2252678.44	5.00
POINTSOURCE		CAR119	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259555.93	2252704.18	5.00
POINTSOURCE		CAR120	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259597.25	2252643.56	5.00
POINTSOURCE		CAR121	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259621.30	2252661.17	5.00
POINTSOURCE		CAR122	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259597.93	2252677.09	5.00
POINTSOURCE		CAR123	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259621.97	2252693.68	5.00
POINTSOURCE		CAR124	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259598.60	2252715.70	5.00
POINTSOURCE		CAR125	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259672.43	2252684.20	5.00
POINTSOURCE		CAR126	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259671.76	2252652.03	5.00
POINTSOURCE		CAR127	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259709.01	2252627.30	5.00
POINTSOURCE		CAR128	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259747.96	2252626.96	5.00
POINTSOURCE		CAR129	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259808.92	2252641.53	5.00
POINTSOURCE		CAR130	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259809.93	2252672.69	5.00
POINTSOURCE		CAR131	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259810.61	2252706.21	5.00
POINTSOURCE		CAR132	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259740.51	2252726.19	5.00
POINTSOURCE		CAR133	87.8	87.8	87.8	Lw	87.8		900.00	0.00	270.00	5.00	a	6259709.69	2252726.53	5.00
POINTSOURCE		DT01	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6258198.55	2252627.64	3.00
POINTSOURCE		DT02	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6258048.52	2252628.32	3.00
POINTSOURCE		DT03	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6258661.85	2252562.62	3.00
POINTSOURCE		DT04	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6259136.66	2252502.00	3.00
POINTSOURCE		DT05	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6259510.55	2252547.72	3.00
POINTSOURCE		DT06	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6259495.99	2252547.72	3.00
POINTSOURCE		DT07	83.2	83.2	83.2	Lw	83.2		900.00	0.00	270.00	3.00	a	6259575.58	2252490.82	3.00
POINTSOURCE		GAS01	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258429.52	2252537.90	5.00
POINTSOURCE		GAS02	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258427.15	2252560.92	5.00
POINTSOURCE		GAS03	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258399.04	2252537.22	5.00
POINTSOURCE		GAS04	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258399.72	2252562.62	5.00
POINTSOURCE		GAS05	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258371.95	2252536.88	5.00
POINTSOURCE		GAS06	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258372.29	2252562.96	5.00
POINTSOURCE		GAS07	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258344.52	2252535.86	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		GAS08	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258344.18	2252562.62	5.00
POINTSOURCE		GAS09	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258315.73	2252536.54	5.00
POINTSOURCE		GAS10	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6258316.41	2252563.97	5.00
POINTSOURCE		GAS11	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6259757.10	2252551.78	5.00
POINTSOURCE		GAS12	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6259757.44	2252576.84	5.00
POINTSOURCE		GAS13	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6259721.88	2252578.20	5.00
POINTSOURCE		GAS14	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6259721.54	2252552.46	5.00
POINTSOURCE		GAS15	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6259685.64	2252552.80	5.00
POINTSOURCE		GAS16	79.9	79.9	79.9	Lw	79.9		900.00	0.00	270.00	5.00	a	6259685.30	2252578.20	5.00
POINTSOURCE		SEAT01	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258430.88	2252650.67	5.00
POINTSOURCE		SEAT02	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258430.54	2252664.90	5.00
POINTSOURCE		SEAT03	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258430.54	2252675.73	5.00
POINTSOURCE		SEAT04	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258707.91	2252559.57	5.00
POINTSOURCE		SEAT05	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258696.39	2252559.57	5.00
POINTSOURCE		SEAT06	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258678.44	2252559.57	5.00
POINTSOURCE		SEAT07	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258808.49	2252686.57	5.00
POINTSOURCE		SEAT08	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258797.65	2252701.13	5.00
POINTSOURCE		SEAT09	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258809.17	2252711.97	5.00
POINTSOURCE		SEAT10	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258798.67	2252725.18	5.00
POINTSOURCE		SEAT11	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258966.31	2252656.09	5.00
POINTSOURCE		SEAT12	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258960.21	2252669.98	5.00
POINTSOURCE		SEAT13	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258953.10	2252654.74	5.00
POINTSOURCE		SEAT14	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258947.01	2252670.31	5.00
POINTSOURCE		SEAT15	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258939.22	2252656.43	5.00
POINTSOURCE		SEAT16	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6258934.14	2252669.98	5.00
POINTSOURCE		SEAT17	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259102.79	2252514.87	5.00
POINTSOURCE		SEAT18	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259116.34	2252514.53	5.00
POINTSOURCE		SEAT19	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259116.00	2252521.64	5.00
POINTSOURCE		SEAT20	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259102.79	2252520.96	5.00
POINTSOURCE		SEAT21	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259116.68	2252527.40	5.00
POINTSOURCE		SEAT22	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259103.13	2252527.73	5.00
POINTSOURCE		SEAT23	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259457.72	2252522.99	5.00
POINTSOURCE		SEAT24	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259450.27	2252523.33	5.00
POINTSOURCE		SEAT25	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259442.48	2252523.33	5.00
POINTSOURCE		SEAT26	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259434.69	2252523.67	5.00
POINTSOURCE		SEAT27	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259559.32	2252510.46	5.00
POINTSOURCE		SEAT28	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259559.32	2252517.91	5.00
POINTSOURCE		SEAT29	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259559.66	2252524.69	5.00
POINTSOURCE		SEAT30	91.5	91.5	91.5	Lw	91.5		900.00	0.00	270.00	5.00	a	6259559.66	2252531.80	5.00
POINTSOURCE		STOR01	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257862.57	2252589.69	5.00
POINTSOURCE		STOR02	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257831.32	2252626.15	5.00
POINTSOURCE		STOR03	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258129.06	2252831.88	5.00
POINTSOURCE		STOR04	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258059.61	2252831.01	5.00
POINTSOURCE		STOR05	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257984.96	2252831.01	5.00
POINTSOURCE		STOR06	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257920.73	2252832.75	5.00
POINTSOURCE		STOR07	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257849.54	2252831.88	5.00
POINTSOURCE		STOR08	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257815.69	2252886.57	5.00
POINTSOURCE		STOR09	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257889.48	2252885.70	5.00
POINTSOURCE		STOR10	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257964.13	2252886.57	5.00
POINTSOURCE		STOR11	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258031.84	2252889.17	5.00
POINTSOURCE		STOR12	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257912.91	2252938.65	5.00
POINTSOURCE		STOR13	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257855.62	2252940.39	5.00
POINTSOURCE		STOR14	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257777.50	2252992.47	5.00
POINTSOURCE		STOR15	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257728.89	2252962.96	5.00
POINTSOURCE		STOR16	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257700.24	2253002.02	5.00
POINTSOURCE		STOR17	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257674.20	2253042.82	5.00
POINTSOURCE		STOR18	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257636.87	2253089.69	5.00
POINTSOURCE		STOR19	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257528.36	2253161.74	5.00
POINTSOURCE		STOR20	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257559.61	2253119.21	5.00
POINTSOURCE		STOR21	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257588.26	2253071.46	5.00
POINTSOURCE		STOR22	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257619.51	2253026.33	5.00
POINTSOURCE		STOR23	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257653.36	2252976.85	5.00
POINTSOURCE		STOR24	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257683.75	2252927.37	5.00
POINTSOURCE		STOR25	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257637.74	2252902.19	5.00
POINTSOURCE		STOR26	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257603.02	2252951.67	5.00
POINTSOURCE		STOR27	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257574.37	2252993.34	5.00
POINTSOURCE		STOR28	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257542.25	2253042.82	5.00
POINTSOURCE		STOR29	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257512.74	2253083.62	5.00
POINTSOURCE		STOR30	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257479.75	2253135.70	5.00
POINTSOURCE		STOR31	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257447.64	2253188.65	5.00
POINTSOURCE		STOR32	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258218.47	2252726.85	5.00
POINTSOURCE		STOR33	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258160.31	2252728.58	5.00
POINTSOURCE		STOR34	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258101.28	2252729.45	5.00
POINTSOURCE		STOR35	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6258038.78	2252730.32	5.00
POINTSOURCE		STOR36	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257978.89	2252730.32	5.00
POINTSOURCE		STOR37	103.4	103.4	103.4	Lw	103.4		900.00	0.00	0.00	5.00	a	6257918.99	2252731.19	5.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258224.54	2252794.56	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258189.74	2252590.73	5.00
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258038.02	2252593.78	5.00
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258497.25	2252711.63	5.00
POINTSOURCE		TRASH05	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258483.37	2252711.63	5.00
POINTSOURCE		TRASH06	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258764.80	2252503.69	5.00
POINTSOURCE		TRASH07	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6258906.03	2252726.53	5.00
POINTSOURCE		TRASH08	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6259036.08	2252727.21	5.00
POINTSOURCE		TRASH09	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6259063.51	2252501.32	5.00
POINTSOURCE		TRASH10	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6259338.85	2252588.70	5.00
POINTSOURCE		TRASH11	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6259518.68	2252714.68	5.00
POINTSOURCE		TRASH12	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6259619.94	2252631.37	5.00
POINTSOURCE		TRASH13	89.0	89.0	89.0	Lw	89		900.00	0.00	270.00	5.00	a	6259684.29	2252722.81	5.00
POINTSOURCE		VAC01	86.3	86.3	86.3	Lw	86.3		900.00	0.00	270.00	3.00	a	6259480.75	2252721.11	3.00
POINTSOURCE		VAC02	86.3	86.3	86.3	Lw	86.3		900.00	0.00	270.00	3.00	a	6259446.20	2252721.45	3.00
POINTSOURCE		VAC03	86.3	86.3	86.3	Lw	86.3		900.00	0.00	270.00	3.00	a	6259405.23	2252721.79	3.00
POINTSOURCE		VAC04	86.3	86.3	86.3	Lw	86.3		900.00	0.00	270.00	3.00	a	6259366.96	2252722.13	3.00
POINTSOURCE		VAC05	86.3	86.3	86.3	Lw	86.3		900.00	0.00	270.00	3.00	a	6259327.67	2252722.13	3.00
POINTSOURCE		VAC06	86.3	86.3	86.3	Lw	86.3		900.00	0.00	270.00	3.00	a	6259299.22	2252722.81	3.00
POINTSOURCE		WASH01	106.0	106.0	106.0	Lw	106		900.00	0.00	270.00	8.00	a	6259456.19	2252670.62	8.00
POINTSOURCE		WASH02	106.0	106.0	106.0	Lw	106		900.00	0.00	270.00	8.00	a	6259324.94	2252672.00	8.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
				left	right		horz.	vert.	Begin		End		x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING			0						12.00	a			6258573.22	2252792.38	12.00	0.00
													6259823.22	2252783.27	12.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00006	x	0		20.00	a	6259693.77	2252703.50	20.00	0.00
									6259766.58	2252703.17	20.00	0.00
									6259766.25	2252650.33	20.00	0.00
									6259692.75	2252649.32	20.00	0.00
BUILDING			BUILDING00007	x	0		20.00	a	6259570.50	2252561.60	20.00	0.00
									6259600.30	2252561.60	20.00	0.00
									6259599.96	2252499.63	20.00	0.00
									6259563.04	2252500.30	20.00	0.00
									6259563.72	2252538.23	20.00	0.00
									6259570.16	2252538.23	20.00	0.00
BUILDING			BUILDING00008	x	0		20.00	a	6259325.30	2252686.23	20.00	0.00
									6259332.75	2252685.55	20.00	0.00
									6259333.43	2252701.13	20.00	0.00
									6259401.50	2252698.42	20.00	0.00
									6259401.50	2252701.47	20.00	0.00
									6259448.57	2252700.79	20.00	0.00
									6259447.90	2252684.54	20.00	0.00
									6259456.03	2252684.20	20.00	0.00
									6259456.36	2252656.77	20.00	0.00
									6259324.62	2252659.48	20.00	0.00
BUILDING			BUILDING00009	x	0		20.00	a	6259404.55	2252564.99	20.00	0.00
									6259487.18	2252563.97	20.00	0.00
									6259488.20	2252529.09	20.00	0.00
									6259427.92	2252530.44	20.00	0.00
									6259427.24	2252535.86	20.00	0.00
									6259404.21	2252536.88	20.00	0.00
BUILDING			BUILDING00010	x	0		20.00	a	6259122.10	2252570.41	20.00	0.00
									6259166.46	2252569.73	20.00	0.00
									6259166.13	2252509.11	20.00	0.00
									6259121.76	2252509.79	20.00	0.00
BUILDING			BUILDING00011	x	0		20.00	a	6258813.57	2252714.34	20.00	0.00
									6258913.14	2252713.33	20.00	0.00
									6258912.80	2252656.43	20.00	0.00
									6258812.89	2252658.12	20.00	0.00
BUILDING			BUILDING00012	x	0		20.00	a	6258930.41	2252711.97	20.00	0.00
									6259044.54	2252710.62	20.00	0.00
									6259043.19	2252654.06	20.00	0.00
									6258975.12	2252654.40	20.00	0.00
									6258974.10	2252674.04	20.00	0.00
									6258930.07	2252675.73	20.00	0.00
BUILDING			BUILDING00013	x	0		20.00	a	6258630.01	2252547.04	20.00	0.00
									6258670.31	2252546.70	20.00	0.00
									6258670.31	2252550.09	20.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6258710.95	2252550.09	20.00	0.00
									6258710.95	2252509.79	20.00	0.00
									6258639.83	2252510.12	20.00	0.00
									6258629.00	2252519.95	20.00	0.00
BUILDING			BUILDING00014	x	0		20.00	a	6258313.70	2252701.13	20.00	0.00
									6258418.35	2252699.78	20.00	0.00
									6258417.33	2252642.20	20.00	0.00
									6258313.36	2252642.88	20.00	0.00
BUILDING			BUILDING00015	x	0		20.00	a	6257947.93	2252652.70	20.00	0.00
									6258032.26	2252652.70	20.00	0.00
									6258031.59	2252613.76	20.00	0.00
									6257948.27	2252614.77	20.00	0.00
BUILDING			BUILDING00016	x	0		20.00	a	6258092.55	2252649.99	20.00	0.00
									6258186.36	2252649.99	20.00	0.00
									6258185.00	2252609.69	20.00	0.00
									6258093.22	2252611.05	20.00	0.00
BUILDING			BUILDING00017	x	0		20.00	a	6257445.90	2253212.96	20.00	0.00
									6257471.07	2253226.85	20.00	0.00
									6257531.84	2253132.23	20.00	0.00
									6257504.93	2253119.21	20.00	0.00
BUILDING			BUILDING00018	x	0		20.00	a	6257400.76	2253181.71	20.00	0.00
									6257425.07	2253197.33	20.00	0.00
									6257484.09	2253100.11	20.00	0.00
									6257459.79	2253087.96	20.00	0.00
BUILDING			BUILDING00019	x	0		20.00	a	6257465.86	2253076.67	20.00	0.00
									6257491.91	2253092.30	20.00	0.00
									6257554.41	2252998.55	20.00	0.00
									6257528.36	2252983.79	20.00	0.00
BUILDING			BUILDING00020	x	0		20.00	a	6257512.74	2253108.79	20.00	0.00
									6257539.65	2253124.42	20.00	0.00
									6257598.68	2253029.80	20.00	0.00
									6257574.37	2253015.91	20.00	0.00
BUILDING			BUILDING00021	x	0		20.00	a	6257577.84	2253110.53	20.00	0.00
									6257601.28	2253123.55	20.00	0.00
									6257643.82	2253059.31	20.00	0.00
									6257618.64	2253043.69	20.00	0.00
BUILDING			BUILDING00022	x	0		20.00	a	6257692.43	2253032.40	20.00	0.00
									6257719.34	2253048.03	20.00	0.00
									6257761.00	2252988.13	20.00	0.00
									6257735.83	2252970.77	20.00	0.00
BUILDING			BUILDING00023	x	0		20.00	a	6257625.59	2253035.87	20.00	0.00
									6257650.76	2253051.50	20.00	0.00
									6257714.13	2252956.88	20.00	0.00
									6257688.95	2252942.12	20.00	0.00
BUILDING			BUILDING00024	x	0		20.00	a	6257582.18	2253004.62	20.00	0.00
									6257604.75	2253022.85	20.00	0.00
									6257668.99	2252929.97	20.00	0.00
									6257643.82	2252914.35	20.00	0.00
BUILDING			BUILDING00025	x	0		20.00	a	6257534.44	2252975.98	20.00	0.00
									6257559.61	2252990.74	20.00	0.00
									6257622.98	2252902.19	20.00	0.00
									6257600.41	2252883.96	20.00	0.00
BUILDING			BUILDING00026	x	0		20.00	a	6257629.06	2252873.55	20.00	0.00
									6257721.94	2252934.31	20.00	0.00
									6257741.04	2252912.61	20.00	0.00
									6257645.55	2252850.11	20.00	0.00
BUILDING			BUILDING00027	x	0		20.00	a	6257732.36	2252942.12	20.00	0.00
									6257801.80	2252986.40	20.00	0.00
									6257818.29	2252962.96	20.00	0.00
									6257747.98	2252917.82	20.00	0.00
BUILDING			BUILDING00028	x	0		20.00	a	6257813.09	2252926.50	20.00	0.00
									6257925.07	2252927.37	20.00	0.00
									6257925.93	2252896.99	20.00	0.00
									6257813.09	2252899.59	20.00	0.00
BUILDING			BUILDING00029	x	0		20.00	a	6257936.35	2252926.50	20.00	0.00
									6257976.28	2252925.63	20.00	0.00
									6257976.28	2252896.12	20.00	0.00
									6257936.35	2252897.85	20.00	0.00
BUILDING			BUILDING00030	x	0		20.00	a	6257789.65	2252872.68	20.00	0.00
									6257903.36	2252873.55	20.00	0.00
									6257903.36	2252844.90	20.00	0.00
									6257788.78	2252847.51	20.00	0.00
BUILDING			BUILDING00031	x	0		20.00	a	6257913.78	2252872.68	20.00	0.00
									6258027.50	2252872.68	20.00	0.00
									6258027.50	2252840.56	20.00	0.00
									6257913.78	2252845.77	20.00	0.00
BUILDING			BUILDING00032	x	0		20.00	a	6258038.78	2252872.68	20.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6258094.34	2252871.81	20.00	0.00
									6258099.54	2252844.03	20.00	0.00
									6258041.39	2252842.30	20.00	0.00
BUILDING			BUILDING00033	x	0		20.00	a	6258087.39	2252817.12	20.00	0.00
									6258155.97	2252816.26	20.00	0.00
									6258157.70	2252787.61	20.00	0.00
									6258087.39	2252789.35	20.00	0.00
BUILDING			BUILDING00034	x	0		20.00	a	6257961.52	2252818.86	20.00	0.00
									6258077.84	2252817.99	20.00	0.00
									6258078.71	2252787.61	20.00	0.00
									6257962.39	2252790.21	20.00	0.00
BUILDING			BUILDING00035	x	0		20.00	a	6257836.52	2252820.60	20.00	0.00
									6257952.84	2252819.73	20.00	0.00
									6257952.84	2252790.21	20.00	0.00
									6257838.26	2252792.82	20.00	0.00
BUILDING			BUILDING00036	x	0		20.00	a	6257651.63	2252813.65	20.00	0.00
									6257715.00	2252856.19	20.00	0.00
									6257736.70	2252831.01	20.00	0.00
									6257752.32	2252840.56	20.00	0.00
									6257855.62	2252705.15	20.00	0.00
									6257789.65	2252661.74	20.00	0.00
									6257769.68	2252689.52	20.00	0.00
									6257753.19	2252679.10	20.00	0.00
BUILDING			BUILDING00037	x	0		20.00	a	6257792.25	2252622.68	20.00	0.00
									6257807.88	2252635.70	20.00	0.00
									6257875.59	2252551.50	20.00	0.00
									6257859.96	2252540.21	20.00	0.00
BUILDING			BUILDING00038	x	0		20.00	a	6257831.32	2252641.78	20.00	0.00
									6257846.94	2252657.40	20.00	0.00
									6257894.68	2252595.77	20.00	0.00
									6257879.93	2252584.49	20.00	0.00
BUILDING			BUILDING00039	x	0		45.00	a	6257598.83	2254920.85	45.00	0.00
									6258411.33	2254920.85	45.00	0.00
									6258404.39	2254813.21	45.00	0.00
									6258341.89	2254816.69	45.00	0.00
									6258338.42	2253816.69	45.00	0.00
									6257571.05	2253816.69	45.00	0.00
									6257571.05	2253938.21	45.00	0.00
									6257633.55	2253938.21	45.00	0.00
									6257650.92	2254813.21	45.00	0.00
									6257598.83	2254802.80	45.00	0.00
BUILDING			BUILDING00040	x	0		45.00	a	6258775.92	2254299.32	45.00	0.00
									6259630.08	2254295.85	45.00	0.00
									6259623.14	2254167.38	45.00	0.00
									6259567.58	2254174.32	45.00	0.00
									6259557.17	2253038.91	45.00	0.00
									6259626.61	2253045.85	45.00	0.00
									6259609.25	2252913.91	45.00	0.00
									6258775.92	2252931.27	45.00	0.00
									6258775.92	2253045.85	45.00	0.00
									6258838.42	2253045.85	45.00	0.00
									6258834.94	2254174.32	45.00	0.00
									6258786.33	2254181.27	45.00	0.00
BUILDING			BUILDING00041	x	0		45.00	a	6257612.72	2253611.82	45.00	0.00
									6257730.78	2253608.35	45.00	0.00
									6257730.78	2253559.74	45.00	0.00
									6258400.92	2253559.74	45.00	0.00
									6258400.92	2253604.88	45.00	0.00
									6258515.50	2253601.41	45.00	0.00
									6258525.92	2253094.46	45.00	0.00
									6257831.47	2253101.41	45.00	0.00
									6257623.14	2253261.13	45.00	0.00

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APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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15495 - Perris Gateway

CadnaA Noise Prediction Model: 15495_03_Construction.cna
Date: 10.10.23
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	59.9	59.9	66.6	80.0	60.0	0.0				5.00	a	6259935.79	2252783.77	5.00
RECEIVERS		R2	54.0	54.0	60.6	80.0	60.0	0.0				5.00	a	6260312.89	2252776.03	5.00
RECEIVERS		R3	48.7	48.7	55.3	80.0	60.0	0.0				5.00	a	6260559.04	2251289.80	5.00
RECEIVERS		R4	47.9	47.9	54.6	80.0	60.0	0.0				5.00	a	6259825.35	2250569.24	5.00
RECEIVERS		R5	48.6	48.6	55.3	80.0	60.0	0.0				5.00	a	6259205.61	2250557.91	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		Construction	118.0	118.0	118.0	68.9	68.9	68.9	Lw	118					8	a

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	Construction	8.00	a			6259844.11	2252764.01	8.00	0.00
						6259842.12	2252522.98	8.00	0.00
						6259769.86	2252452.09	8.00	0.00
						6257893.87	2252471.95	8.00	0.00
						6257810.59	2252575.37	8.00	0.00
						6257729.16	2252680.26	8.00	0.00
						6257649.61	2252786.58	8.00	0.00
						6257571.98	2252894.30	8.00	0.00
						6257496.27	2253003.39	8.00	0.00
						6257422.51	2253113.81	8.00	0.00

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6257350.74	2253225.53	8.00	0.00
						6257280.96	2253338.50	8.00	0.00
						6257213.21	2253452.70	8.00	0.00
						6257072.30	2253757.67	8.00	0.00
						6257113.78	2253756.74	8.00	0.00
						6257139.62	2253703.91	8.00	0.00
						6257167.70	2253652.23	8.00	0.00
						6257197.98	2253601.81	8.00	0.00
						6257230.39	2253552.73	8.00	0.00
						6257264.88	2253505.09	8.00	0.00
						6257301.37	2253458.97	8.00	0.00
						6257339.82	2253414.46	8.00	0.00
						6257380.14	2253371.64	8.00	0.00
						6257423.63	2253326.44	8.00	0.00
						6257468.85	2253282.97	8.00	0.00
						6257515.73	2253241.29	8.00	0.00
						6257564.19	2253201.46	8.00	0.00
						6257614.17	2253163.56	8.00	0.00
						6257665.58	2253127.62	8.00	0.00
						6257718.36	2253093.72	8.00	0.00
						6257783.87	2253055.41	8.00	0.00
						6257850.44	2253018.99	8.00	0.00
						6257895.39	2253004.11	8.00	0.00
						6257939.73	2252987.49	8.00	0.00
						6257983.38	2252969.16	8.00	0.00
						6258026.29	2252949.14	8.00	0.00
						6258068.38	2252927.46	8.00	0.00
						6258109.60	2252904.15	8.00	0.00
						6258137.34	2252887.67	8.00	0.00
						6258163.68	2252869.03	8.00	0.00
						6258188.45	2252848.36	8.00	0.00
						6258211.50	2252825.78	8.00	0.00
						6258232.68	2252801.43	8.00	0.00
						6258248.43	2252779.90	8.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
				left	right		horz.	vert.	Begin		End		x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING			0						12.00	a			6258573.22	2252792.38	12.00	0.00
													6259823.22	2252783.27	12.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00039	x	0		45.00	a	6257598.83	2254920.85	45.00	0.00
									6258411.33	2254920.85	45.00	0.00
									6258404.39	2254813.21	45.00	0.00
									6258341.89	2254816.69	45.00	0.00
									6258338.42	2253816.69	45.00	0.00
									6257571.05	2253816.69	45.00	0.00
									6257571.05	2253938.21	45.00	0.00
									6257633.55	2253938.21	45.00	0.00
									6257650.92	2254813.21	45.00	0.00
									6257598.83	2254802.80	45.00	0.00
BUILDING			BUILDING00040	x	0		45.00	a	6258775.92	2254299.32	45.00	0.00
									6259630.08	2254295.85	45.00	0.00
									6259623.14	2254167.38	45.00	0.00
									6259567.58	2254174.32	45.00	0.00
									6259557.17	2253038.91	45.00	0.00
									6259626.61	2253045.85	45.00	0.00
									6259609.25	2252913.91	45.00	0.00
									6258775.92	2252931.27	45.00	0.00
									6258775.92	2253045.85	45.00	0.00
									6258838.42	2253045.85	45.00	0.00
									6258834.94	2254174.32	45.00	0.00
									6258786.33	2254181.27	45.00	0.00
BUILDING			BUILDING00041	x	0		45.00	a	6257612.72	2253611.82	45.00	0.00
									6257730.78	2253608.35	45.00	0.00
									6257730.78	2253559.74	45.00	0.00
									6258400.92	2253559.74	45.00	0.00
									6258400.92	2253604.88	45.00	0.00
									6258515.50	2253601.41	45.00	0.00
									6258525.92	2253094.46	45.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)
								6257831.47	2253101.41	45.00	0.00
								6257623.14	2253261.13	45.00	0.00

URBAN | CROSSROADS

PERRIS GATEWAY (DPR22-00028; CUP 22-05259; TPM 38567)

TRAFFIC ANALYSIS

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Reference Number	Agency	Date
15495-07 TA Report	City of Perris	November 8, 2023

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
EAC	Existing plus Ambient plus Cumulative
EAPC	Existing plus Ambient plus Project plus Cumulative
HCM	Highway Capacity Manual
HQTA	High Quality Transit Area
ITE	Institute of Transportation Engineers
LOS	Level of Service
OPR	Governor's Office of Planning and Research
PHF	Peak Hour Factor
Project	Perris Gateway
PVCC	Perris Valley Commerce Center
RCTC	Riverside County Transportation Commission
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
TA	Traffic Analysis
TAZ	Traffic Analysis Zone
TPA	Transit Priority Area
TUMF	Transportation Uniform Mitigation Fee
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the Traffic Analysis (TA) for Perris Gateway ("Project"), which is located north of Ramona Expressway, between the I-215 Freeway and Webster Avenue in the City of Perris, as shown on Exhibit 1-1. The Project is located within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCC SP). The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary recommend improvements to achieve acceptable operations consistent with General Plan level of service goals and policies. This traffic study has been prepared in accordance with the City of Perris' Transportation Impact Analysis Guidelines for CEQA (California Environmental Quality Act) (May 2020), and consultation with City of Perris staff during the traffic study scoping process. (1) The Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

1.1 SUMMARY OF FINDINGS

The Project is to construct the following improvements as design features in conjunction with development of the site:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway
- Project to construct Ramona Expressway at its ultimate half-section as an Expressway (184-foot right-of-way, 134-foot curb-to-curb) between Nevada Street and Webster Avenue consistent with the PVCC SP and the City of Perris General Plan Circulation Element.

Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report. The proposed Project is not anticipated to require the construction of any off-site improvements. However, the Project Applicant's responsibility for the Project's contributions towards deficient off-site intersections is fulfilled through fair share contribution or payment into pre-existing fee programs (if applicable) that would be assigned to the future construction of any future local/regional improvement needs. The Project Applicant would be required to pay requisite fees consistent with the City's requirements (see Section 7 *Local and Regional Funding Mechanisms*).

EXHIBIT 1-1: LOCATION MAP

1.2 PROJECT OVERVIEW

A preliminary site plan for the proposed Project is shown on Exhibit 1-2. The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. The Project is anticipated to be constructed in one phase by the year 2026. As indicated on Exhibit 1-2, vehicular access will be provided via the following driveways:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway

Regional access to the Project site is accommodated from the I-215 Freeway via Ramona Expressway Avenue. In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). (2) Project is anticipated to generate 14,394 two-way trips per day with 747 AM peak hour trips and 590 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2023) Conditions
- Existing plus Project (E+P) Conditions
- Existing Plus Ambient Growth Plus Cumulative (E+A+C) (2026)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (E+A+P+C) (2026)

1.3.1 EXISTING (2023) CONDITIONS

Information for Existing (2023) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Local schools were in session with in-person instruction at the time of the traffic counts. Traffic counts were conducted in May 2023 based on vehicle classification.

EXHIBIT 1-2: PRELIMINARY SITE PLAN

1.3.2 EXISING PLUS PROJECT CONDITIONS

The E+P conditions analysis determines the potential circulation system deficiencies based on a comparison of the E+P traffic conditions to Existing conditions. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project. Cumulative development projects and ambient growth are not included for E+P traffic conditions.

1.3.3 EAC & EAPC (2026) CONDITIONS

The EAC and EAPC (2026) traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. The roadway network is similar to Existing conditions except for new connections to be constructed by the Project under EAPC conditions. To account for background traffic growth, an ambient growth factor from Existing (2023) conditions of 9.27% is included (3.0% compounded annually over 3 years) for both EAC and EAPC (2026) traffic conditions.

Conservatively, this TA estimates the area ambient traffic growth and then adds traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed ambient growth rates; and some of these related projects may not be implemented and operational within the 2026 Opening Year time frame assumed for the Project. The resulting traffic growth utilized in this traffic study (ambient growth factor plus traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic deficiencies under 2026 conditions.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Perris' traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Perris staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The scoping agreement is included in Appendix 1.1 of this TA.

The 13 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Perris staff. At a minimum, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County's traffic study guidelines. (1) The "50 peak hour trip" criterion represents a minimum number of trips at which a typical intersection would have the potential to be affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County (including the City of Perris) for estimating a potential area of influence (i.e., study area).

The intent of a Congestion Management Project (CMP) is to more link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and most recently updated in 2019 as part of the Riverside County Long Range Transportation Study. The Riverside County Transportation Commission (RCTC) adopted the 2019 CMP for the County of Riverside in December 2019. (3) There are no study area intersections identified as a Riverside County CMP intersection.

EXHIBIT 1-3: STUDY AREA

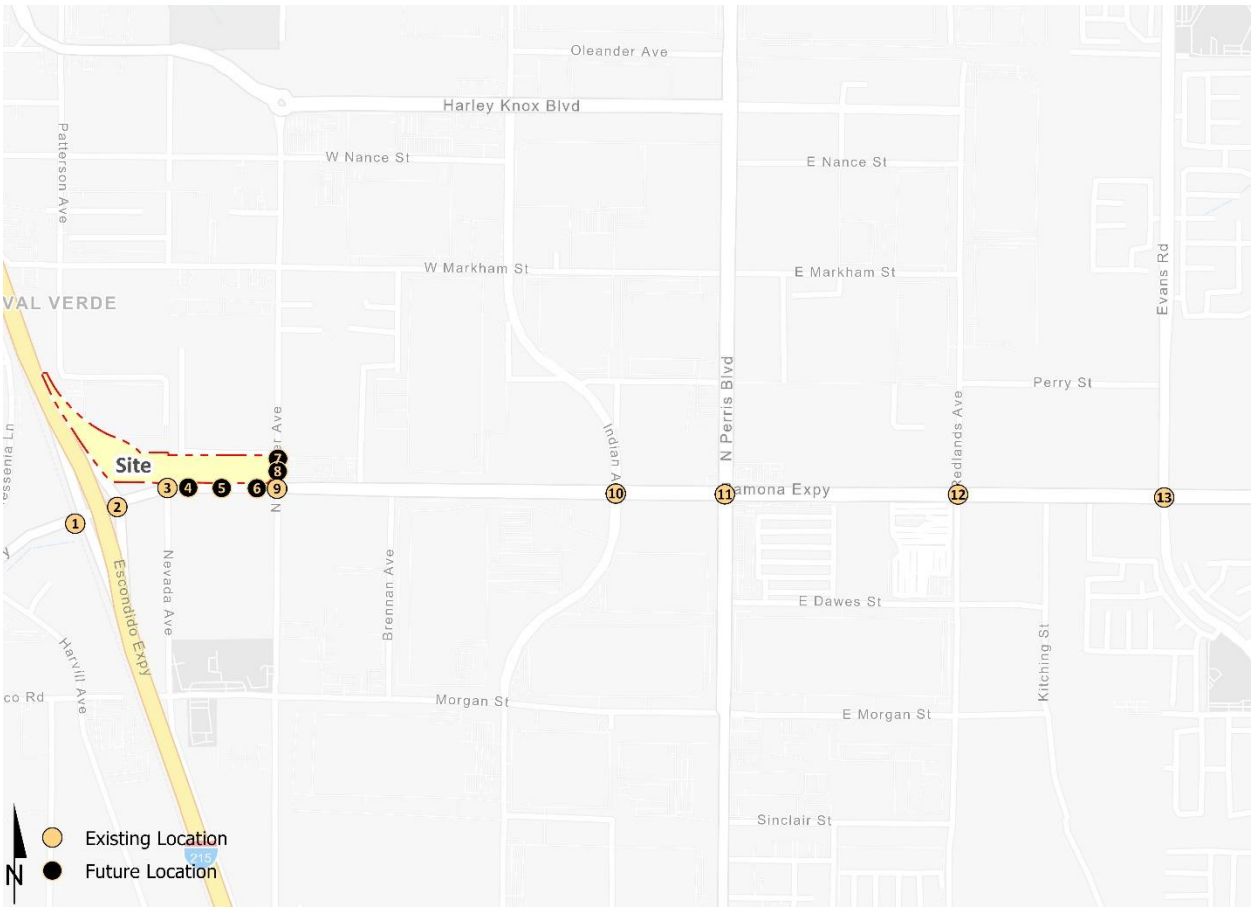


TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jursidiction
1	I-215 SB Ramps & Ramona Exwy.	Caltrans, County of Riverside
2	I-215 NB Ramps & Ramona Exwy.	Caltrans, County of Riverside
3	Driveway 1/Nevada Rd. & Ramona Exwy.	County of Riverside, City of Perris
4	Driveway 2 & Ramona Exwy.	City of Perris
5	Driveway 3 & Ramona Exwy.	City of Perris
6	Driveway 4 & Ramona Exwy.	City of Perris
7	Webster Av. & Driveway 5	City of Perris
8	Webster Av. & Driveway 6	City of Perris
9	Webster Av. & Ramona Exwy.	City of Perris
10	Indian Av. & Ramona Exwy.	City of Perris
11	Perris Bl. & Ramona Exwy.	City of Perris
12	Redlands Av. & Ramona Exwy.	City of Perris
13	Evans Rd. & Ramona Exwy.	City of Perris

1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 3 *Area Conditions*, Section 5 *E+P Traffic Conditions,* and Section 6 *EAC & EAPC (2026) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-2.

1.5.1 EXISTING (2023) CONDITIONS

Intersections

The study area intersections are currently operating at an acceptable LOS during the peak hours.

Queues

There are no movements that currently experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing (2023) traffic conditions.

The following movements are currently experiencing turn-pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing (2023) traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM peak hour only
- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) southbound right-turn – AM peak hour only

TABLE 1-2: SUMMARY OF LOS

		Existing		E+P		EAC (2026)		EAPC (2026)	
#	Intersection	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps & Ramona Exwy.	D	D	D	D	F	F	F	F
2	I-215 NB Ramps & Ramona Exwy.	D	D	D	D	E	E	F	F
3	Driveway 1/Nevada Rd. & Ramona Exwy.	D	D	D	D	F	F	D	D
4	Driveway 2 & Ramona Exwy.	N/A	N/A	D	D	N/A	N/A	D	D
5	Driveway 3 & Ramona Exwy.	N/A	N/A	D	D	D	D	D	D
6	Driveway 4 & Ramona Exwy.	N/A	N/A	D	D	N/A	N/A	D	D
7	Webster Av. & Driveway 5	N/A	N/A	D	D	N/A	N/A	D	D
8	Webster Av. & Driveway 6	N/A	N/A	D	D	N/A	N/A	D	D
9	Webster Av. & Ramona Exwy.	D	D	D	D	D	D	D	D
10	Indian Av. & Ramona Exwy.	D	D	D	D	D	E	D	E
11	Perris Bl. & Ramona Exwy.	D	D	D	D	E	E	F	F
12	Redlands Av. & Ramona Exwy.	D	D	D	D	F	F	F	F
13	Evans Rd. & Ramona Exwy.	D	D	D	D	F	E	F	F

D = A - D E = E F = F

1.5.2 E+P CONDITIONS

Intersections

The study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours with the addition of Project traffic under E+P traffic conditions.

Queues

There are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic for E+P traffic conditions.

The following additional movements are anticipated to experience turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic, in addition to the movements previously identified under Existing Conditions:

- Nevada Road & Ramona Expressway (#3) eastbound left-turn – AM and PM peak hours
- Evans Road & Ramona Expressway (#13) northbound left -turn – AM peak hour only

1.5.3 EAC & EAPC (2026) CONDITIONS

Intersections

The following study area intersections are anticipated to operate at an unacceptable LOS under EAC (2026) Without Project traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) – LOS E AM and PM peak hours
- Nevada Road & Ramona Expressway (#3) – LOS F AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) – LOS E PM peak hour only
- Perris Boulevard & Ramona Expressway (#11) – LOS E AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) – LOS F AM and PM peak hours
- Evans Road & Ramona Expressway (#13) – LOS F AM peak hour; LOS E PM peak hour

The addition of Project traffic is not anticipated to result in any additional deficiencies. It should be noted that the Project design feature to construct a traffic signal at Nevada Road/Driveway 1 & Ramona Expressway (#3) is anticipated to improve the intersection back to an acceptable LOS.

Queues

There are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAC and EAPC (2026) traffic conditions.

The following movements are anticipated to experience turn-pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAC (2026) traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) eastbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM and PM peak hours
- Webster Avenue & Ramona Expressway (#9) eastbound left turn lane – AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) southbound left-turn – PM peak hour only
- Indian Avenue & Ramona Expressway (#10) eastbound left-turn – AM and PM peak hours
- Perris Boulevard & Ramona Expressway (#11) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) westbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) northbound left-turn – AM peak hour only
- Evans Road & Ramona Expressway (#13) southbound right-turn – AM and PM peak hours

With the addition of Project traffic, the following movements are anticipated to experience queuing issues under EAPC (2026) traffic conditions:

- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours

1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the minimum improvements needed to accommodate site access and maintain acceptable peak hour operations for the proposed Project. The site adjacent recommendations are shown on Exhibit 1-4.

Recommendation 1 – Nevada Avenue/Driveway 1 & Ramona Expressway (#3) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound left turn lane and southbound shared through-right turn lane.
- Project to construct a westbound right-turn trap-lane. As part of the Project's frontage improvements along Ramona Expressway, a 3rd westbound through lane could be accommodated in the future with the construction of an additional receiving lane along Ramona Expressway, west of Nevada Avenue/Driveway 1. Until such time widening to the west occurs, the pavement along the Project's frontage on Ramona Expressway can be utilized as a trap right turn lane.
- Project to modify the existing eastbound left turn lane to provide a minimum of 300-feet of storage.

Recommendation 2 – Driveway 2 & Ramona Expressway (#4) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the southbound approach and a right turn lane. The driveway should be restricted to right-in/right-out access only.
- Project to construct a westbound shared through-right turn lane.

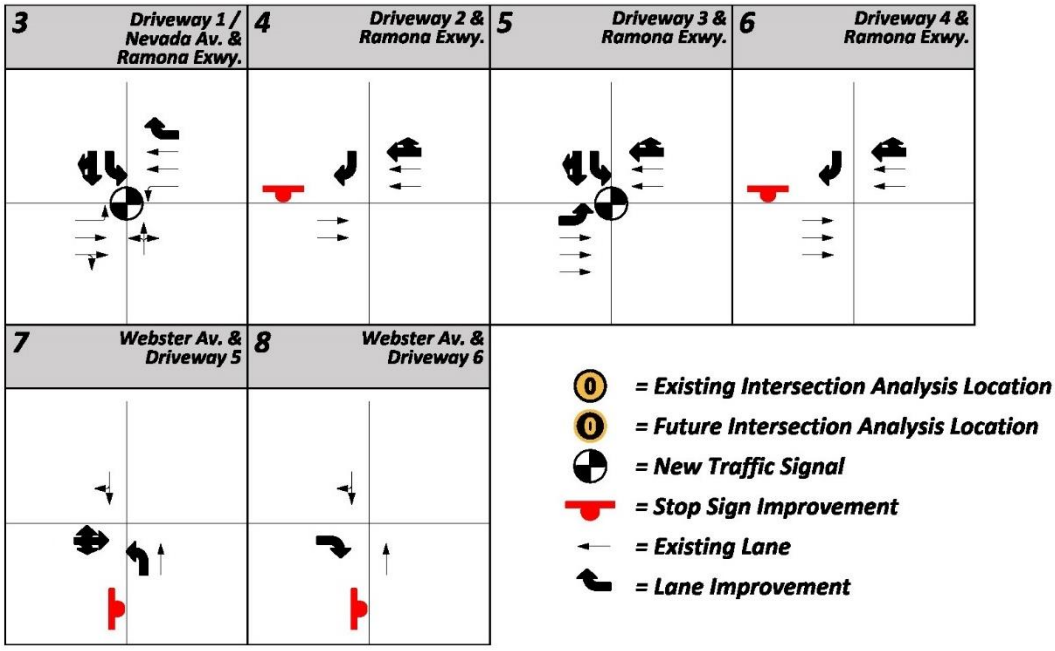
Recommendation 3 – Driveway 3 & Ramona Expressway (#5) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal. The driveway should align with the future development on the South of Ramona Expressway.
- Project to construct a southbound left turn lane and southbound shared through-right turn lane.
- Project to construct a westbound shared through-right turn lane.
- Project to construct an eastbound left turn lane with a minimum of 225-feet of storage.

Recommendation 4 – Driveway 4 & Ramona Expressway (#6) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the southbound approach and a right turn lane. The driveway should be restricted to right-in/right-out access only.
- Project to construct a westbound shared through-right turn lane.

EXHIBIT 1-4: SITE ACCESS RECOMMENDATIONS



Recommendation 5 – Webster Avenue & Driveway 5 (#7) – The following improvements are necessary to accommodate site access:

- Project to install a stop control on the eastbound approach. The driveway should allow for full-access movement, and construct an eastbound shared left-through-right turn lane.
- Project to construct a northbound left turn lane with a minimum of 100-feet of storage.

Recommendation 6 – Webster Avenue & Driveway 6 (#8) – The following improvement is necessary to accommodate site access:

- Project to install a stop control on the eastbound approach and a right turn lane. The driveway should be restricted to right-in/right-out access only.

Recommendation 7 – Ramona Expressway is an east-west oriented roadway located on the Project's southern boundary. Project to construct Ramona Expressway at its ultimate half-section width as an Expressway (6-8 lanes, 184-foot right-of-way) from Nevada Avenue to Webster Avenue, consistent with the City's Standards. The outermost westbound lane on Ramona Expressway, at Nevada Avenue, should be striped as a right-turn trap lane, until such time in the future when additional receiving lanes on Ramona Expressway are provided, west of Nevada Avenue.

Recommendation 8 – Webster Avenue is a north-south oriented roadway located on the Project's eastern boundary. According to the City of Perris General Plan, Webster Avenue is currently built out to its ultimate half-section as a Secondary Arterial (94-foot right-of-way). As such, there are no roadway improvement recommendations. However, curb, gutter, and sidewalk improvements are recommended along Webster Avenue, as needed to accommodate the proposed Project driveways.

On-site traffic signing and striping should be implemented agreeable with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard California Department of Transportation (Caltrans) and City of Perris sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

1.6.2 OFF-SITE RECOMMENDATIONS

A summary of the off-site intersection improvements is provided in Table 1-3. As shown in Table 1-3, the Project will construct or contribute payment towards the improvements identified, as discussed in Section 1.6.1 *Site Adjacent and Site Access Recommendations*. For those improvements listed in Table 1-3 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fair share or payment of fees (if applicable) that would be assigned to construction of the identified recommended improvements. The Project Applicant would be required to pay fair share fees and participate in pre-existing fee programs consistent with the City's requirements (see Section 7 *Local and Regional Funding Mechanisms*).

TABLE 1-3: SUMMARY OF IMPROVEMENTS

#	Intersection Location	Jurisdiction	Analysis Scenario Existing	E+P	EAC (2026)	EAPC (2026)	Project Responsibility	Improvements in DIF[1,2]	Project Fair Share
1	I-215 SB Ramps & Ramona Exwy.	County of Riverside, Perris, Caltrans	None	None	Add 3rd EB through lane	Same	Fees	Yes (TUMF)	12.1%
					Add EB right turn lane	Same	Fair Share	No	
					Add 2nd WB left turn lane	Same	Fees	Yes (TUMF)	
					Add 3rd WB through lane	Same	Fees	Yes (TUMF)	
2	I-215 NB Ramps & Ramona Exwy.	County of Riverside, Perris, Caltrans	None	None	Add 2nd EB left turn lane	Same	Fees	Yes (TUMF)	18.0%
					Add 3rd EB through lane	Same	Fees	Yes (TUMF)	
					Add 3rd WB through lane	Same	Fees	Yes (TUMF)	
					Add WB free-right turn lane	Same	Fair Share	No	
10	Indian Av. & Ramona Exwy.	Perris	None	None	Add 4th EB through lane	Same	Fair Share	No	11.9%
					Restripe the WB approach to provide one left turn lane, three through lanes, and one shared through-right turn lane	Same	Fair Share	No	
11	Perris Bl. & Ramona Exwy.	Perris	None	None	Restripe the NB approach to provide two left turn lanes, two through lanes, and one shared-through right turn lane	Same	Fees	Yes (TUMF)	8.1%
					Restripe the SB approach to provide two left turn lanes, two through lanes, and one shared-through right turn lane	Same	Fair Share	No	
12	Redlands Av. & Ramona Exwy.	Perris	None	None	Add 2nd SB left turn lane	Same	Fair Share	No	4.5%
					Add 4th EB through lane	Same	Fair Share	No	
					Add 4th WB through lane	Same	Fair Share	No	
							Fair Share	No	
							Fair Share	No	
							Fair Share	No	
13	Evans Rd. & Ramona Exwy.	Perris	None	None	Add 3rd WB through lane	Same	Fair Share	No	4.1%

[1] Improvements included in regional/City DIF programs have been identified as such.
[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at the discretion of the City.

1.6.3 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS

A queuing analysis was conducted at the study area intersections for EAPC (2026) traffic conditions to determine the turn pocket lengths necessary to accommodate 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours. The results have been provided in Appendix 1.2.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). Many agencies utilize the 95th percentile queues for design purposes. A vehicle is considered queued whenever it is traveling at less than 10 feet/second. The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn movement. A SimTraffic simulation has been recorded five (5) times, during the weekday AM and weekday PM peak hours, and has been seeded for 30-minute periods with 60-minute recording intervals.

The minimum stacking distance required, based on the anticipated 95th percentile queues, is shown in Table 1-4. The highest queue length during either the AM or PM peak hour is shown in bold.

TABLE 1-4: PROJECT DRIVEWAY PEAK HOUR QUEUING SUMMARY

Intersection	Turn-Pocket Movement	95th Percentile Queue (Feet)	
		AM Peak Hour	PM Peak Hour
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	283	275
Driveway 3 & Ramona Exwy.	EBL	211	197
Webster Av. & Driveway 5	NBL	26	19

1.7 ON-SITE AND SITE ADJACENT CIRCULATION

1.7.1 CONCEPT STRIPING

Concept striping exhibits have been prepared for the Project to show the proposed turn lanes, striping, and turn pocket lengths, consistent with the site recommendations previously discussed under Section 1.6.1 *Site Adjacent and Site Access Recommendations*. The concept striping plan is provided on Exhibit 1-5.

EXHIBIT 1-5: CONCEPT STRIPING PLAN (PAGE 1 OF 2)

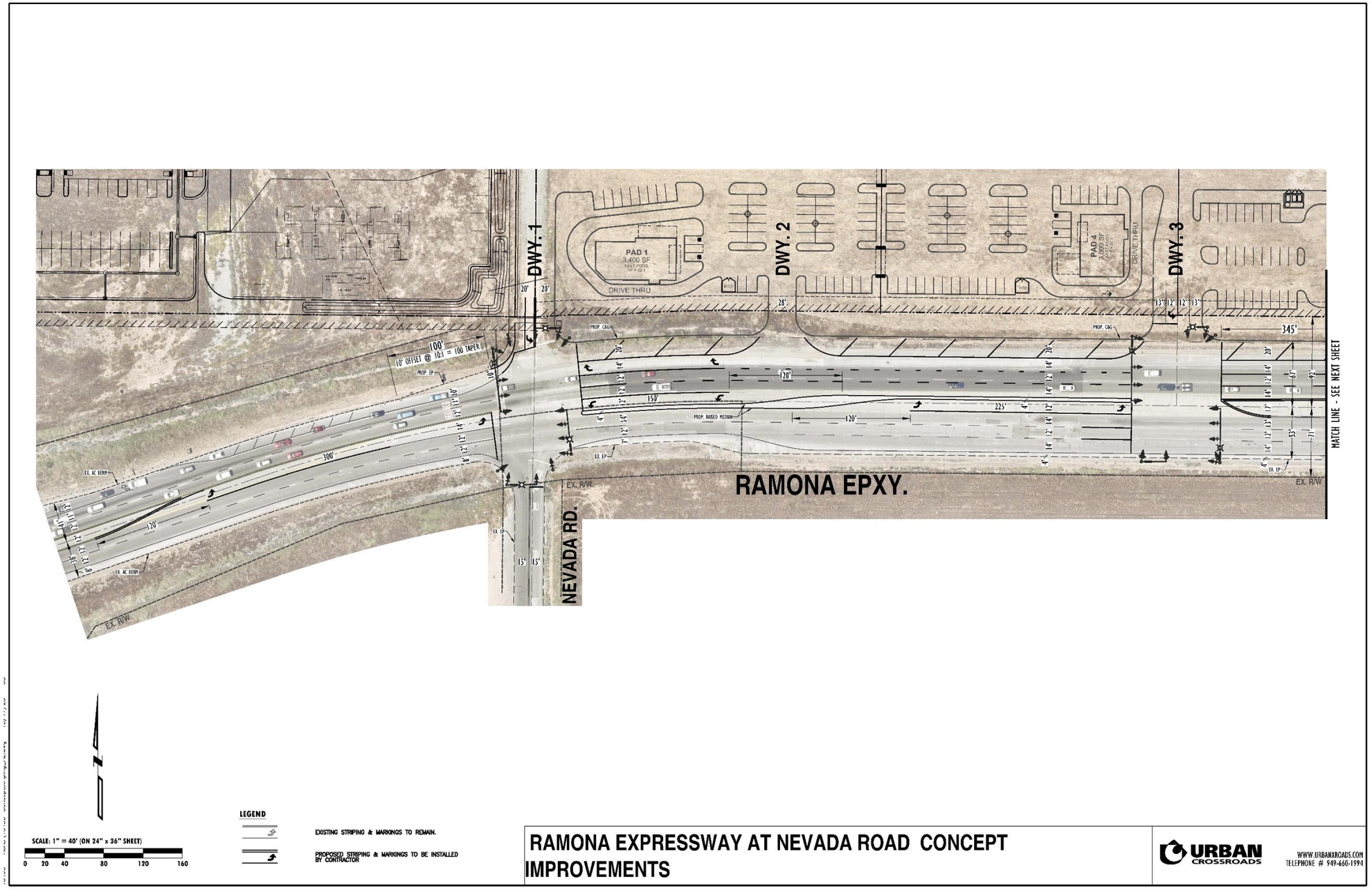
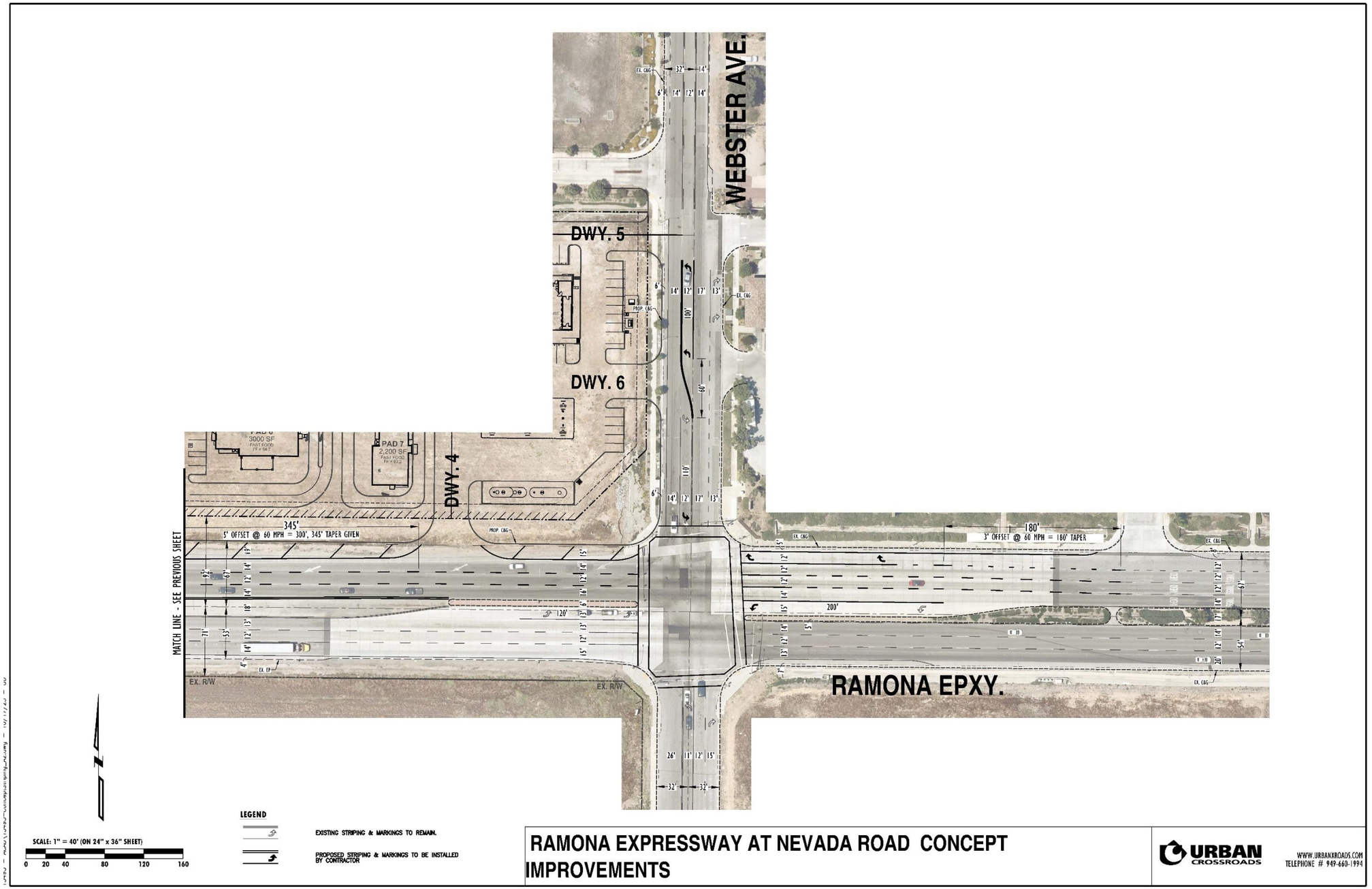


EXHIBIT 1-5: CONCEPT STRIPING PLAN (PAGE 2 OF 2)



1.7.1 TURNING TEMPLATES AND INTERNAL CIRCULATION

At the request of the City of Perris, various vehicle turning templates have been evaluated to ensure vehicles can adequately navigate. The vehicle turning templates are provided on the following exhibits:

- Exhibit 1-6: Fire Truck
- Exhibit 1-7: Passenger Car
- Exhibit 1-8: Garbage Truck
- Exhibit 1-9: Standard Delivery Truck (SU-40 Truck)

The on-site traffic flows are provided on Exhibit 1-10, which show the proposed circulation throughout the site.

1.8 VEHICLE MILES TRAVELED (VMT)

1.8.1 BACKGROUND

Changes to the Guidelines for Implementation of CEQA were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) (Technical Advisory). Based on OPR's Technical Advisory, the City of Perris adopted their Transportation Impact Analysis Guidelines for CEQA (May 2020) (City Guidelines). The adopted City Guidelines have been utilized to prepare the VMT analysis.

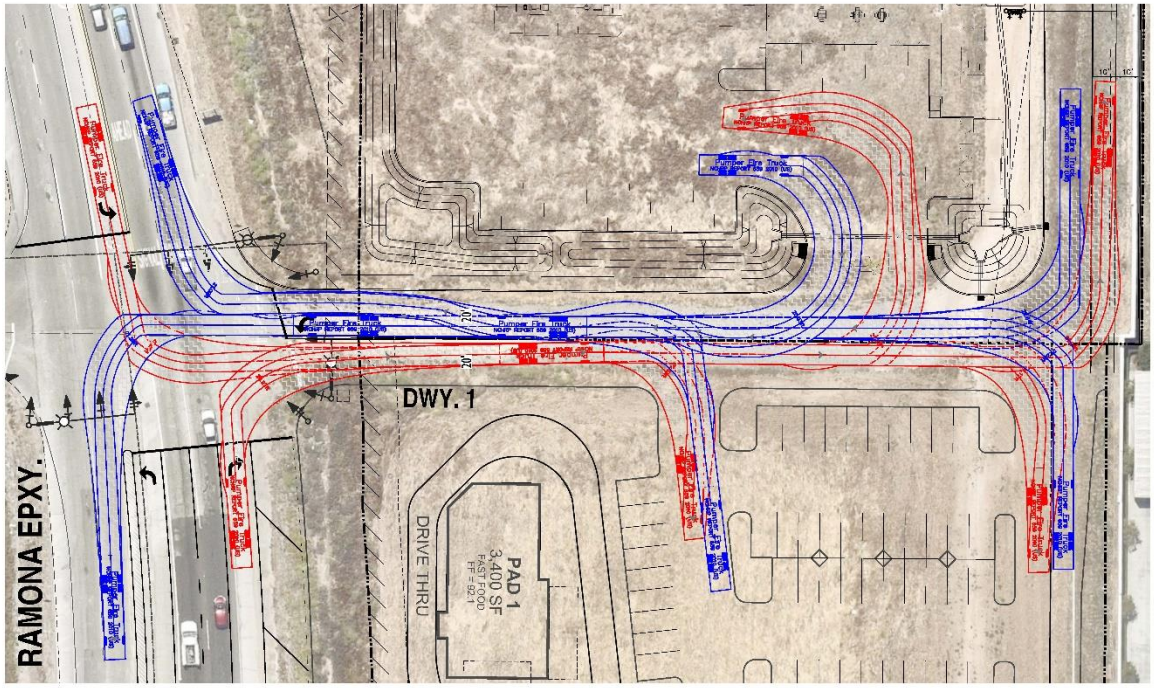
1.8.2 VMT SCREENING

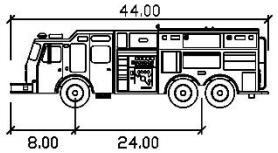
Consistent with City Guidelines, a land use project's VMT impact is to perform an initial screening evaluation utilizing the City of Perris VMT Scoping Form for Land Use Projects (**Scoping Form**). The Scoping Form provides an easy-to-use tool for streamlining the VMT analysis process.

The City's Guidelines list standardized screening methods for project level VMT analysis that can be used to identify when a proposed land use development project is anticipated to result in a less than significant impact thereby eliminating the need to conduct additional VMT analysis. The City of Perris VMT screening methods are listed below, and a land use project need only to meet one of the screening criteria to result in a less than significant impact.:

- Affordable Housing
- High Quality Transit Areas (HQTA) Screening
- Local-Serving Land Use
- Low VMT Area
- Net Daily Trips Less than 500 ADT

EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 1 OF 5)





Pumper Fire Truck

	feet
Width	8.50
Track	8.50
Lock to Lock Time	6.0
Steering Angle	37.8

SCALE: 1" = 20' (ON 24" x 36" SHEET)
0 10 20 40 60 80

FIRE TRUCK TURNING TEMPLATE RAMONA EXPRESSWAY AT PROJECT DRIVEWAY 1

URBAN CROSSROADS
WWW.URBANXROADS.COM
TELEPHONE # 949-660-1994

15495 - ACAD\15495-TruckTurns_02.dwg - 10/23/23 - 03

EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 2 OF 5)

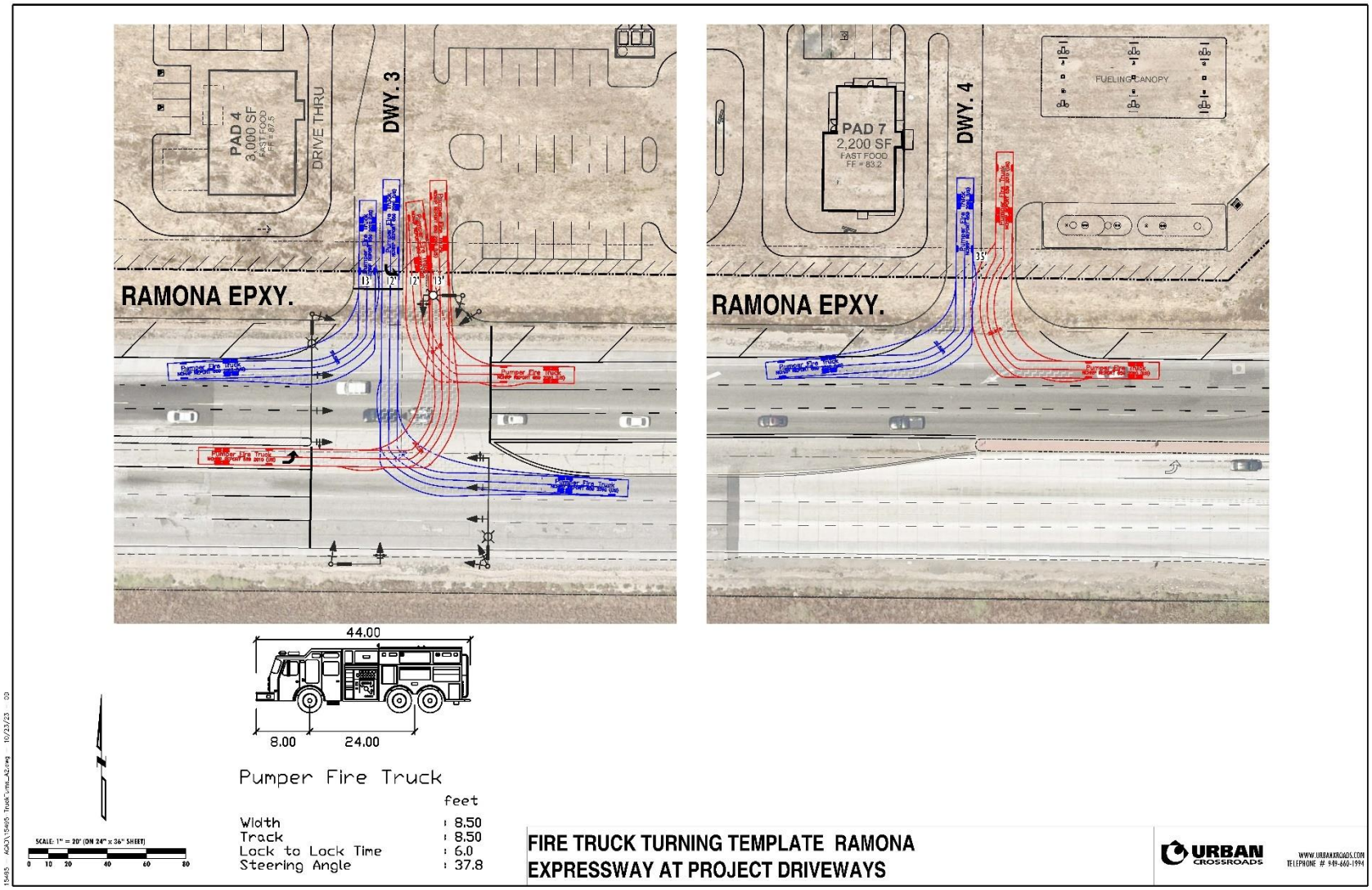


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 3 OF 5)

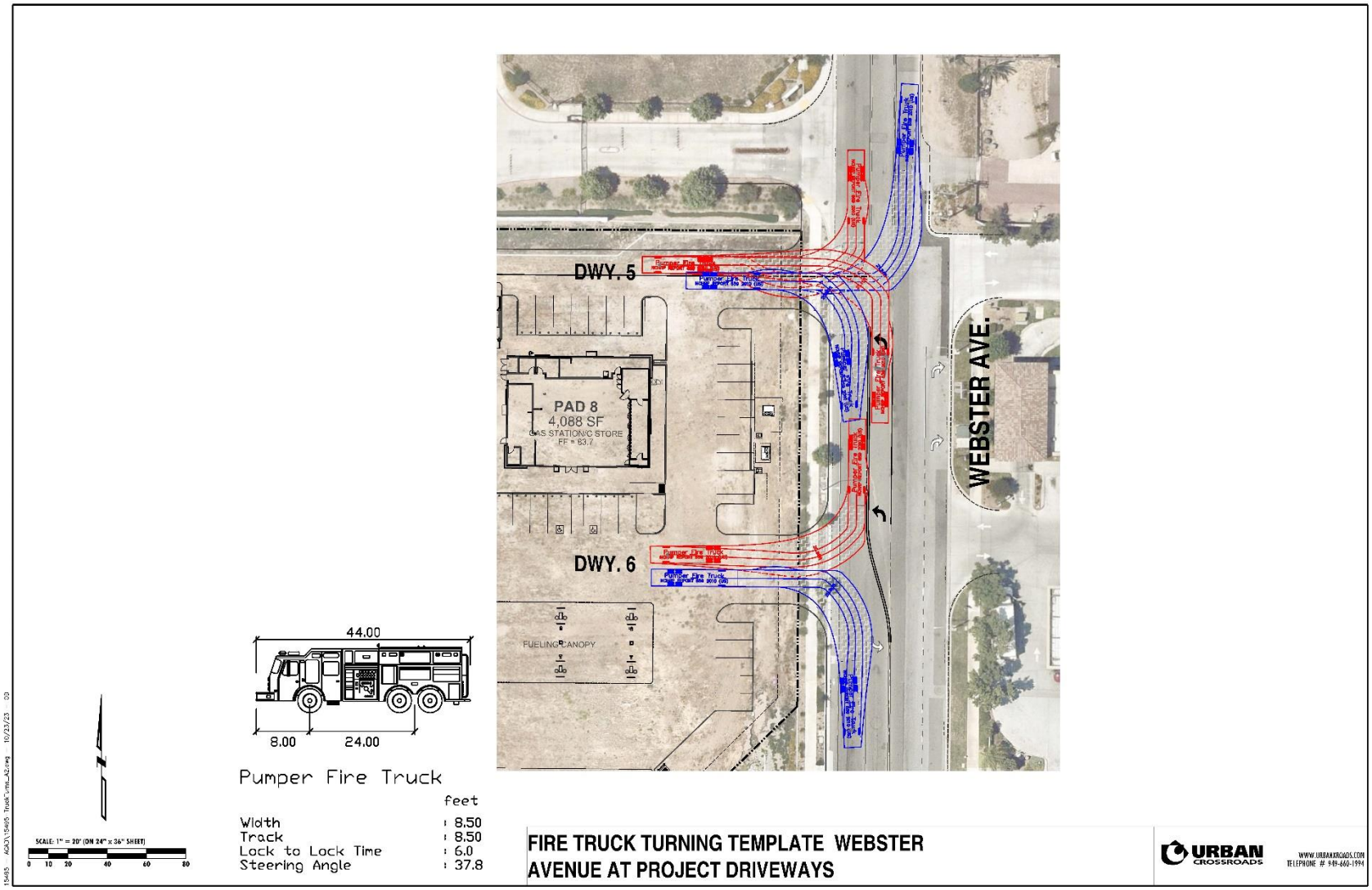


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 4 OF 5)

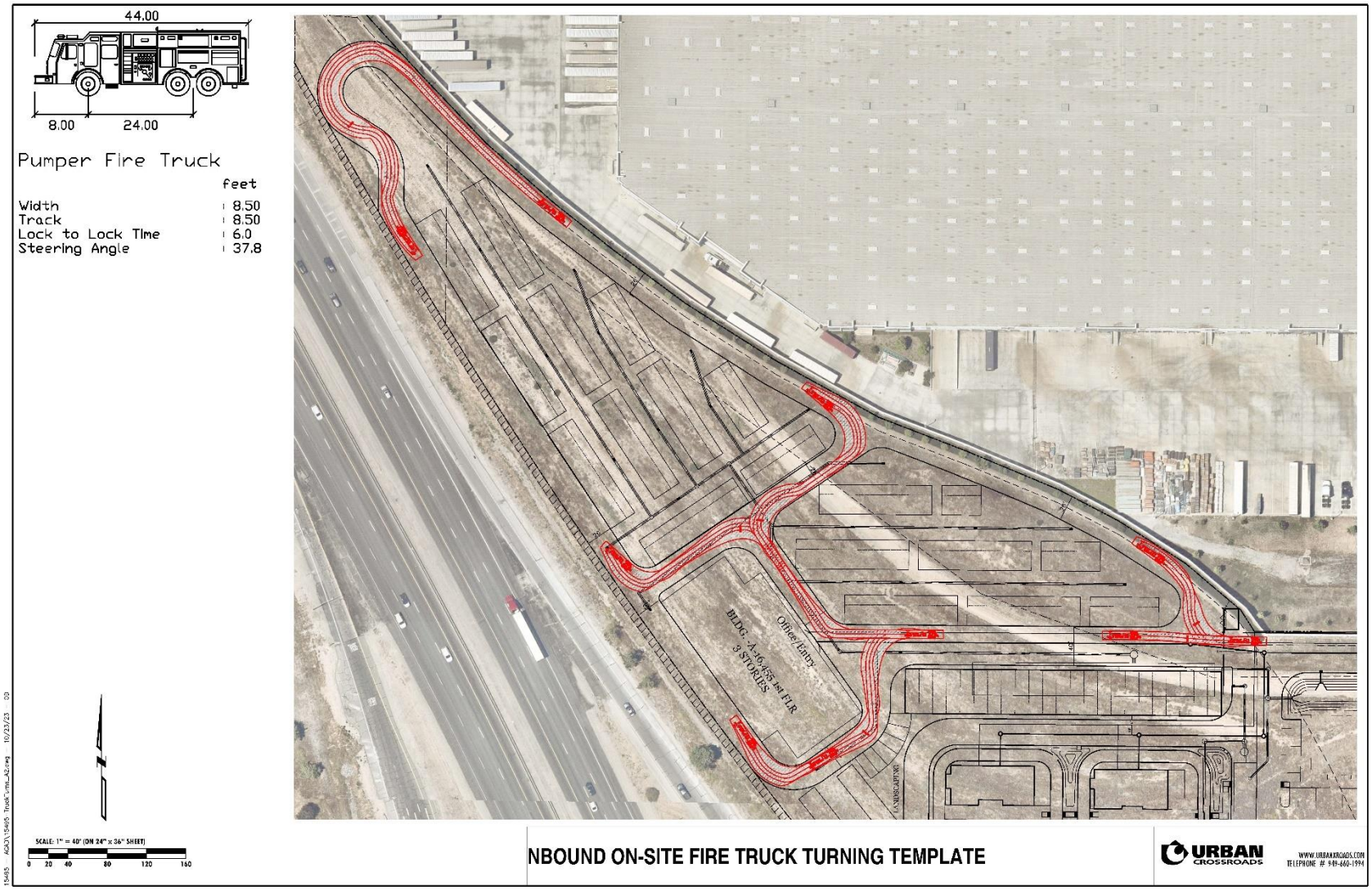


EXHIBIT 1-6: FIRE TRUCK TURNING TEMPLATE (PAGE 5 OF 5)

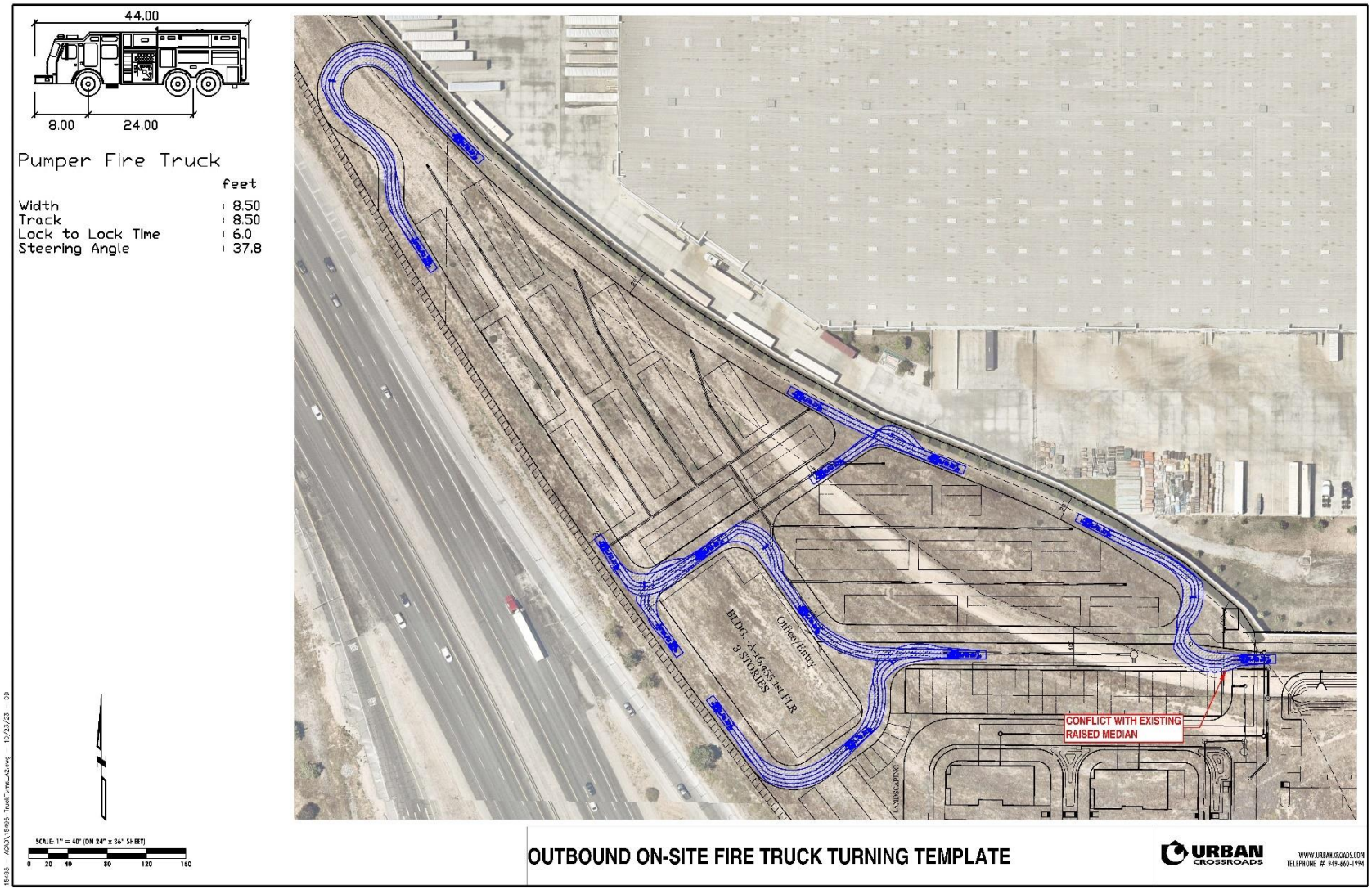


EXHIBIT 1-7: PASSENGER CAR TURNING TEMPLATE (PAGE 1 OF 3)

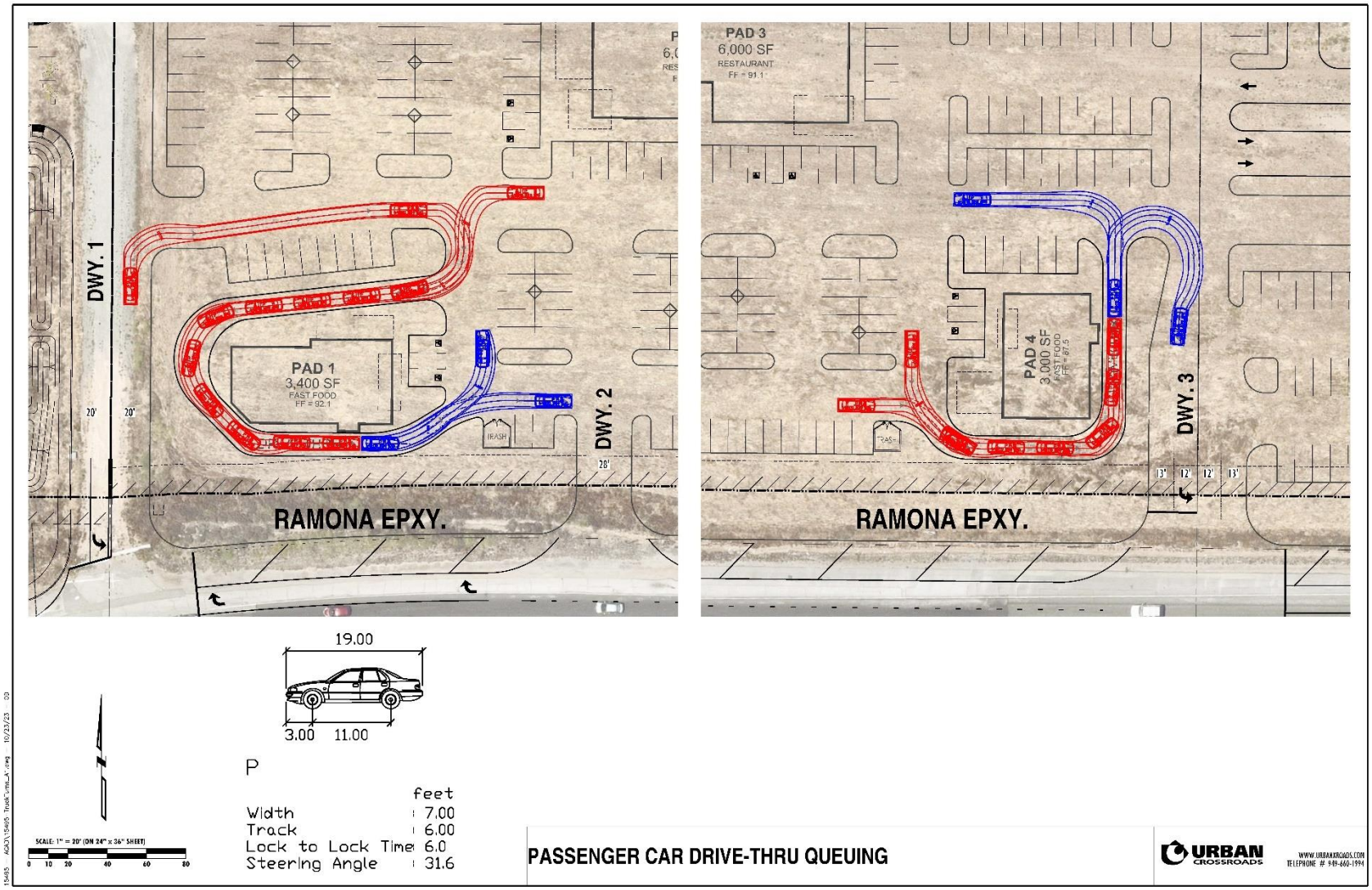


EXHIBIT 1-7: PASSENGER CAR TURNING TEMPLATE (PAGE 2 OF 3)

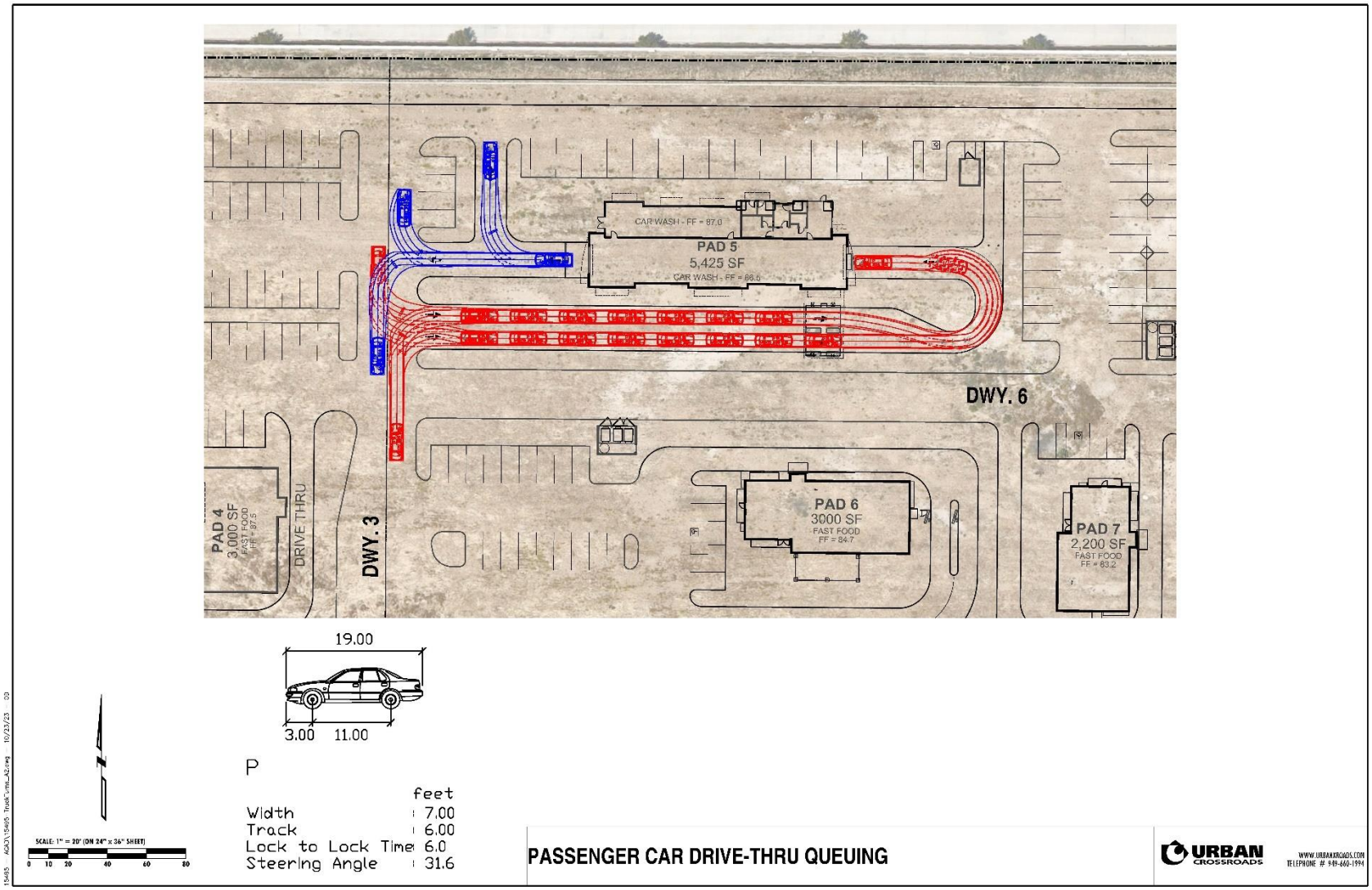


EXHIBIT 1-7: PASSENGER CAR TURNING TEMPLATE (PAGE 3 OF 3)

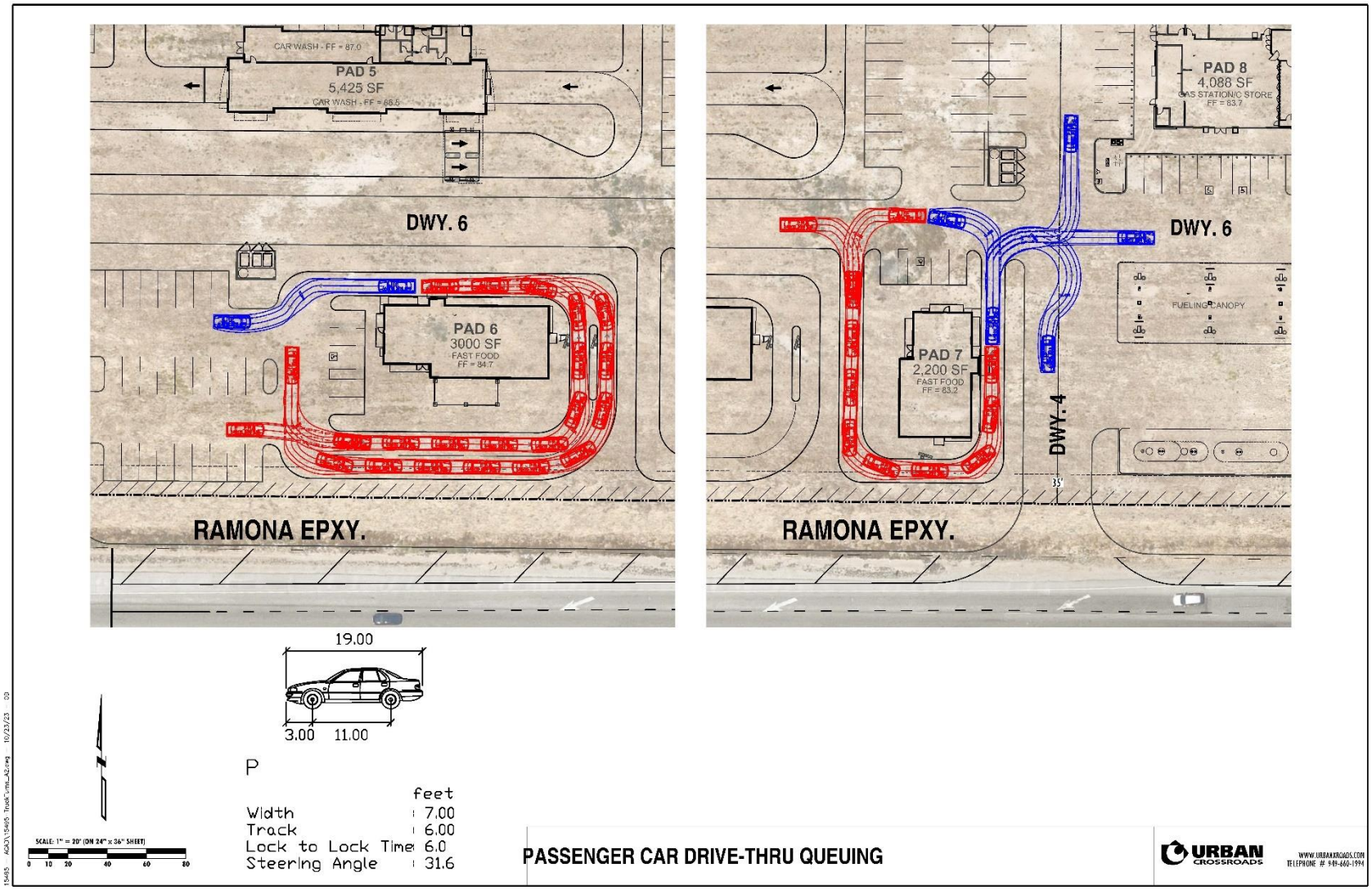


EXHIBIT 1-8: GARBAGE TRUCK TURNING TEMPLATE (PAGE 1 OF 3)

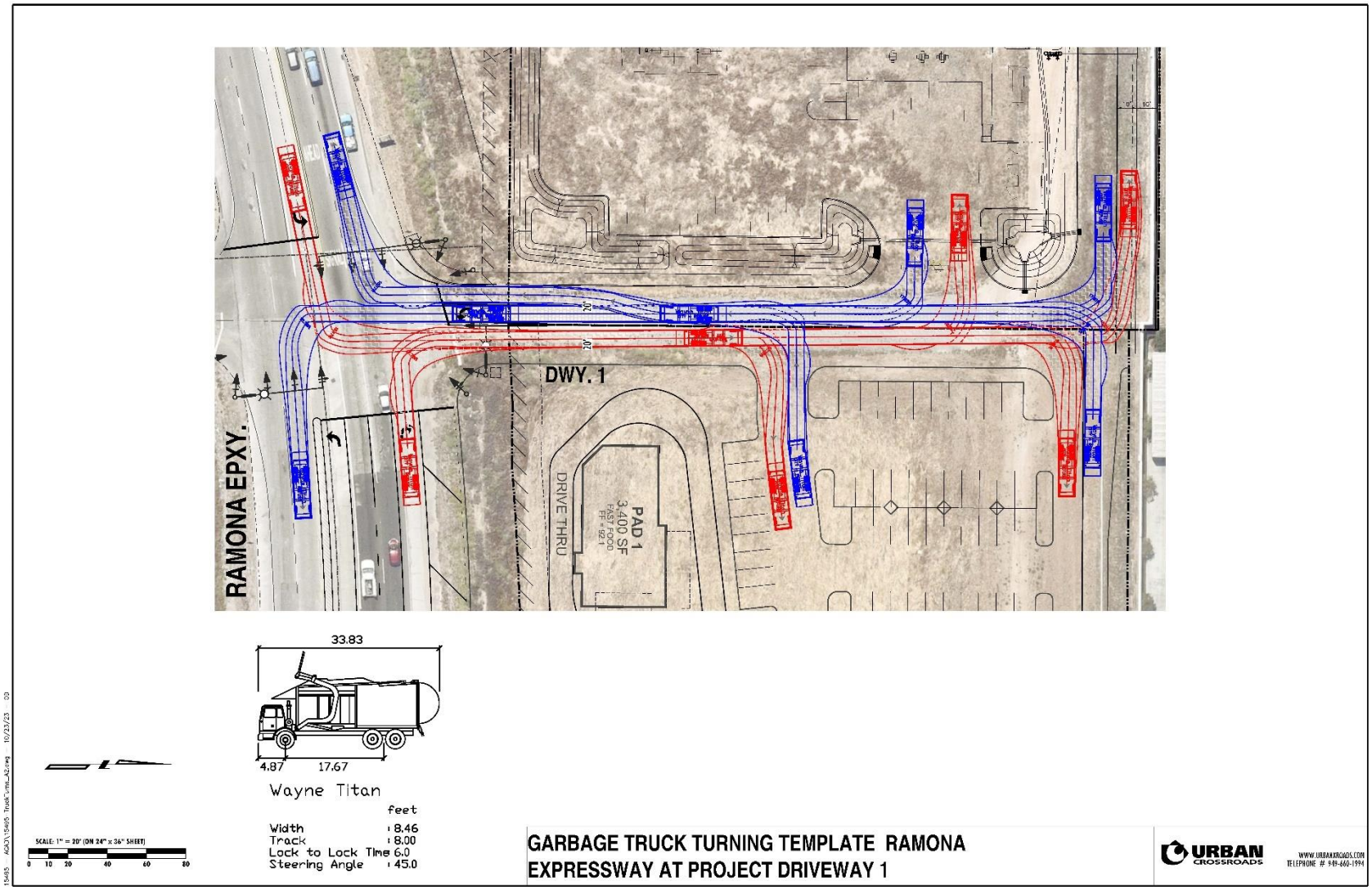


EXHIBIT 1-8: GARBAGE TRUCK TURNING TEMPLATE (PAGE 2 OF 3)

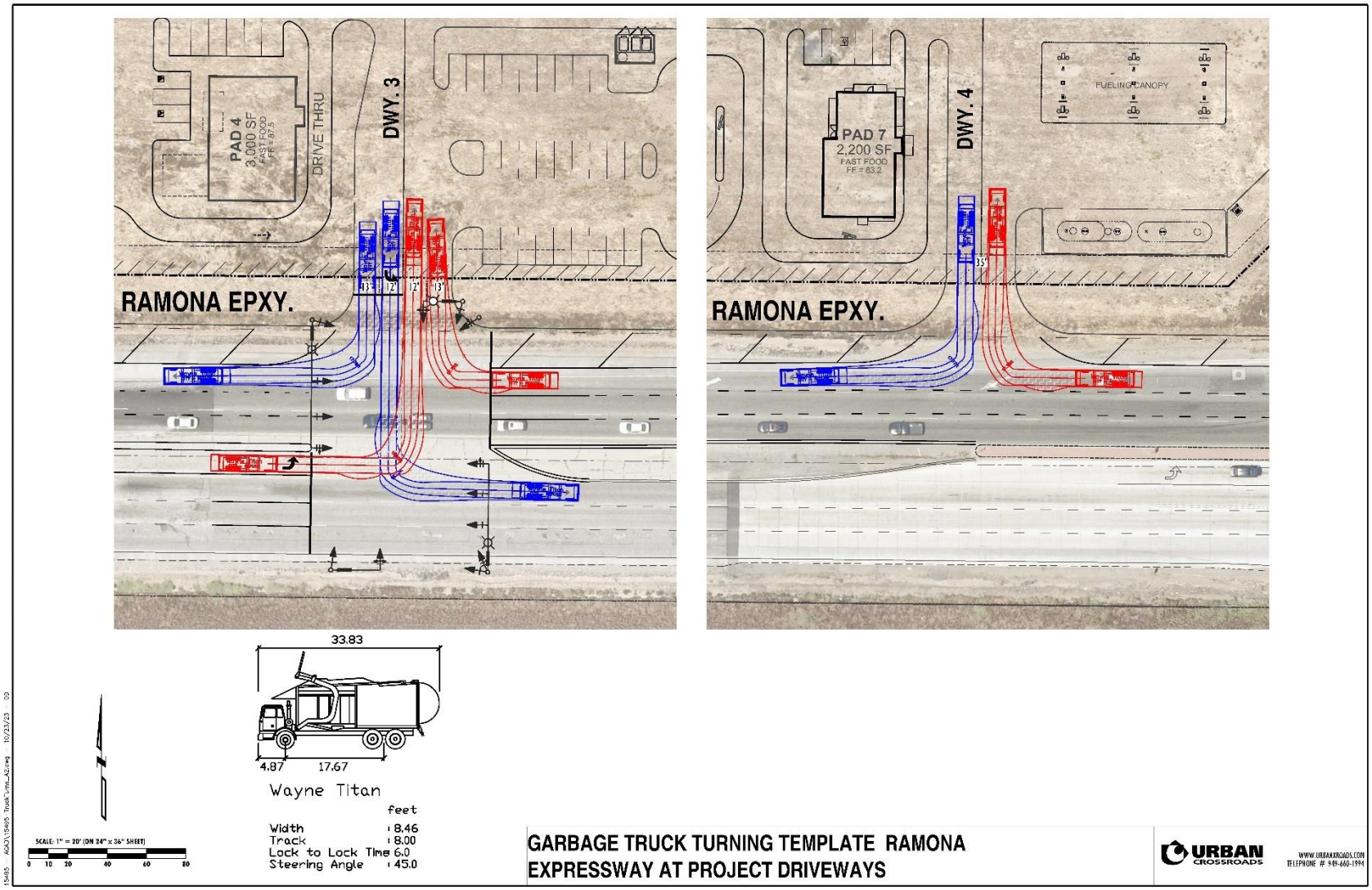


EXHIBIT 1-8: GARBAGE TRUCK TURNING TEMPLATE (PAGE 3 OF 3)

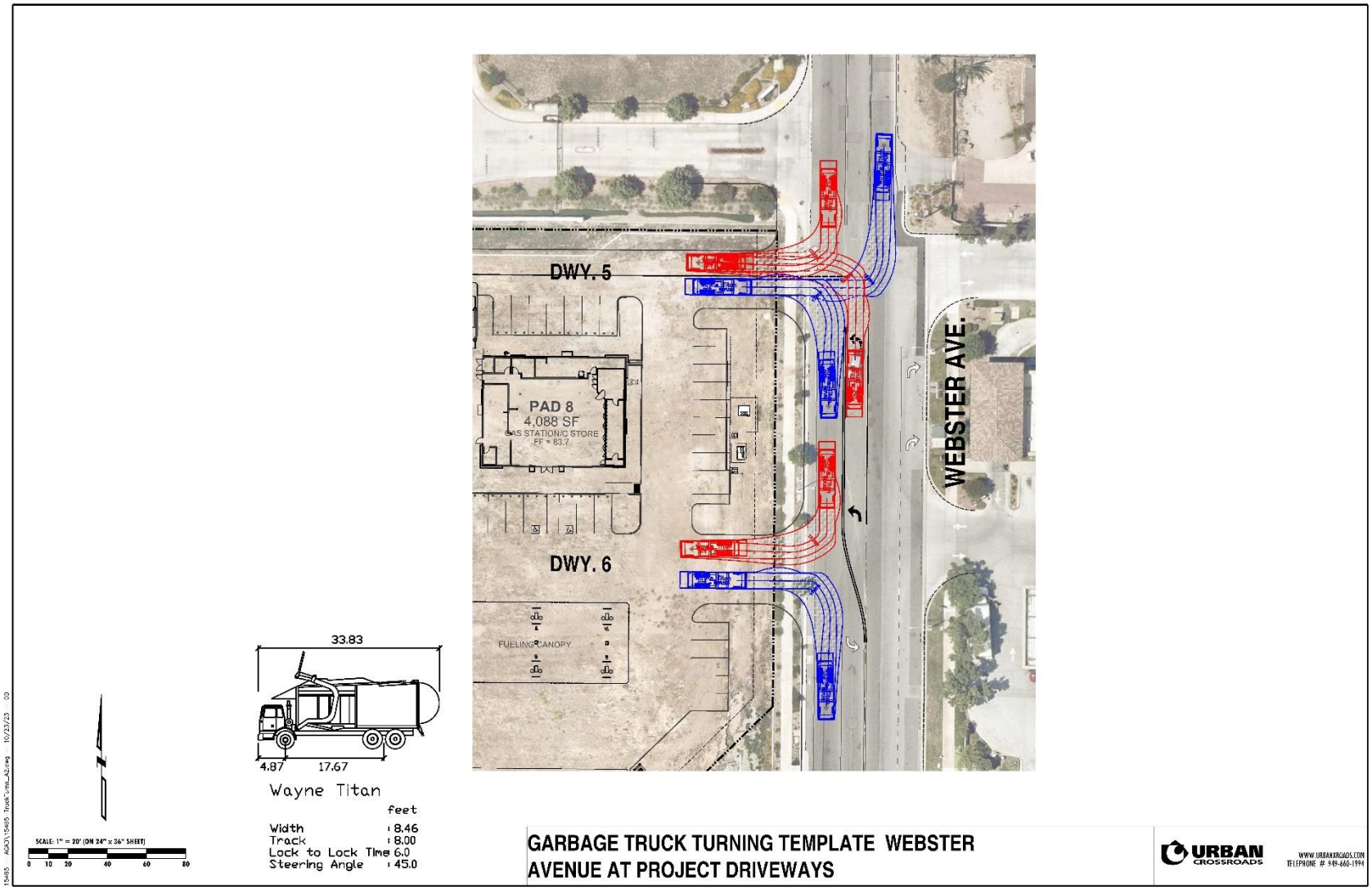


EXHIBIT 1-9: DELIVERY TRUCK TURNING TEMPLATE (PAGE 1 OF 3)

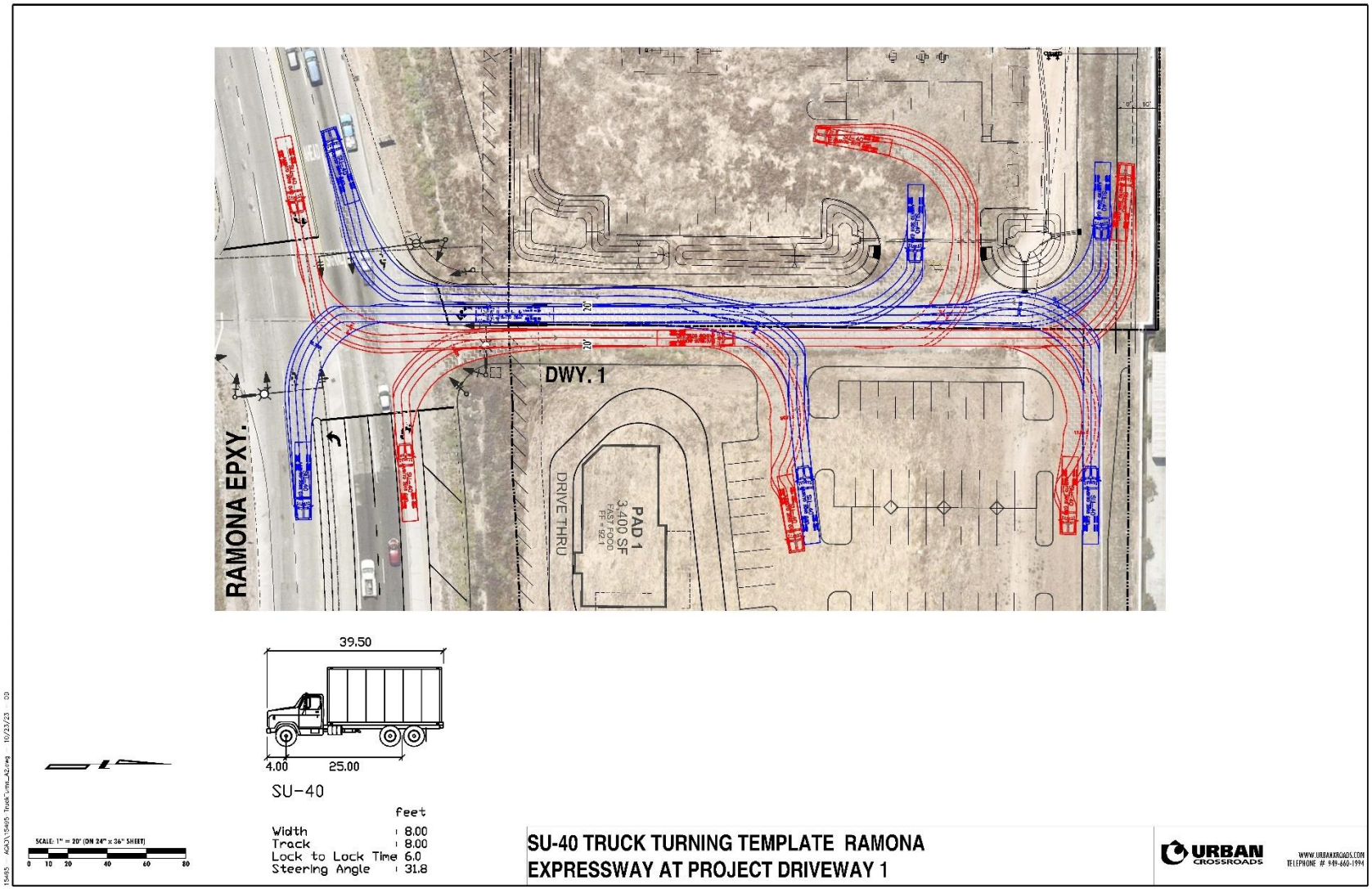


EXHIBIT 1-9: DELIVERY TRUCK TURNING TEMPLATE (PAGE 2 OF 3)

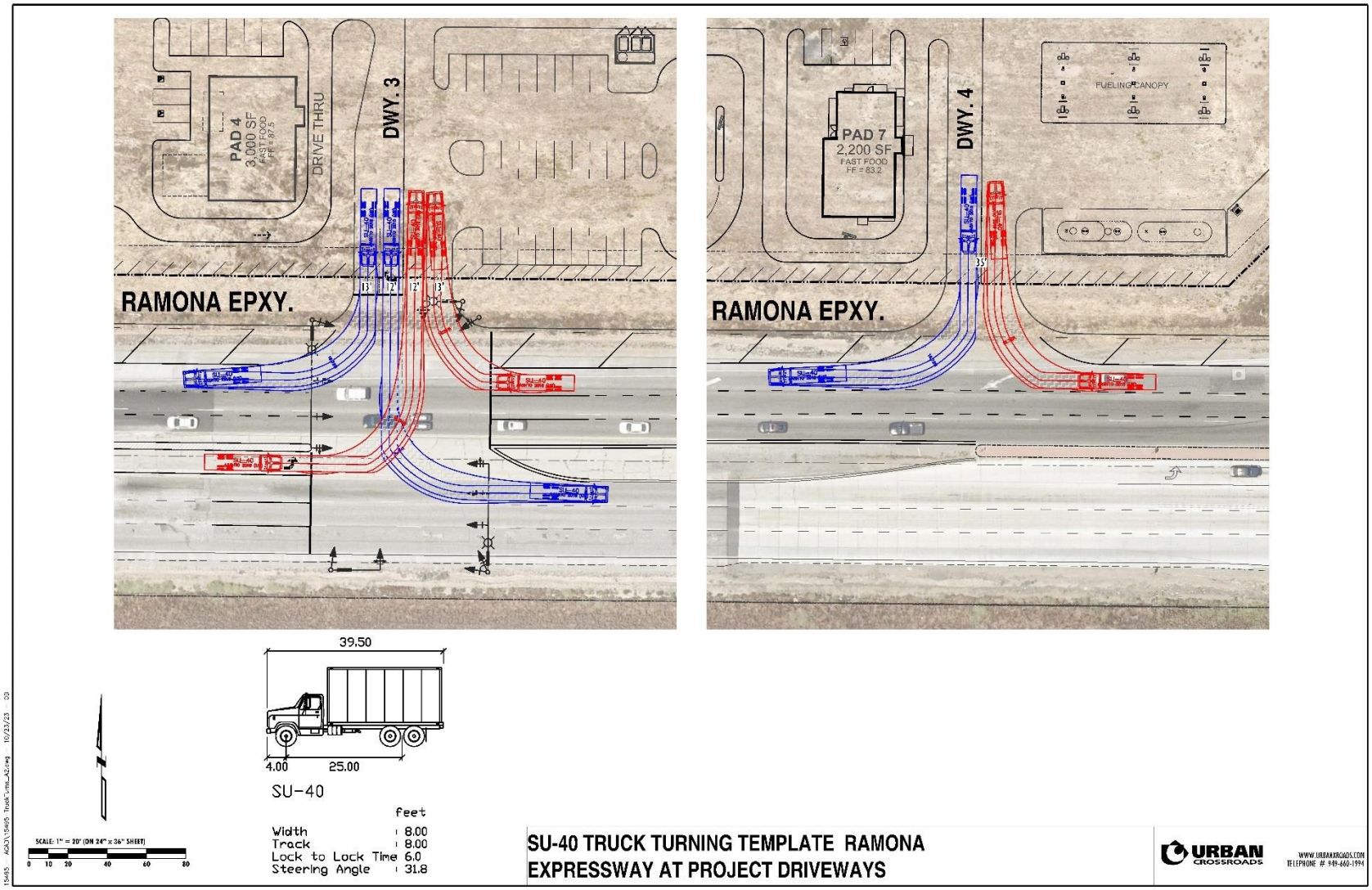


EXHIBIT 1-9: DELIVERY TRUCK TURNING TEMPLATE (PAGE 3 OF 3)

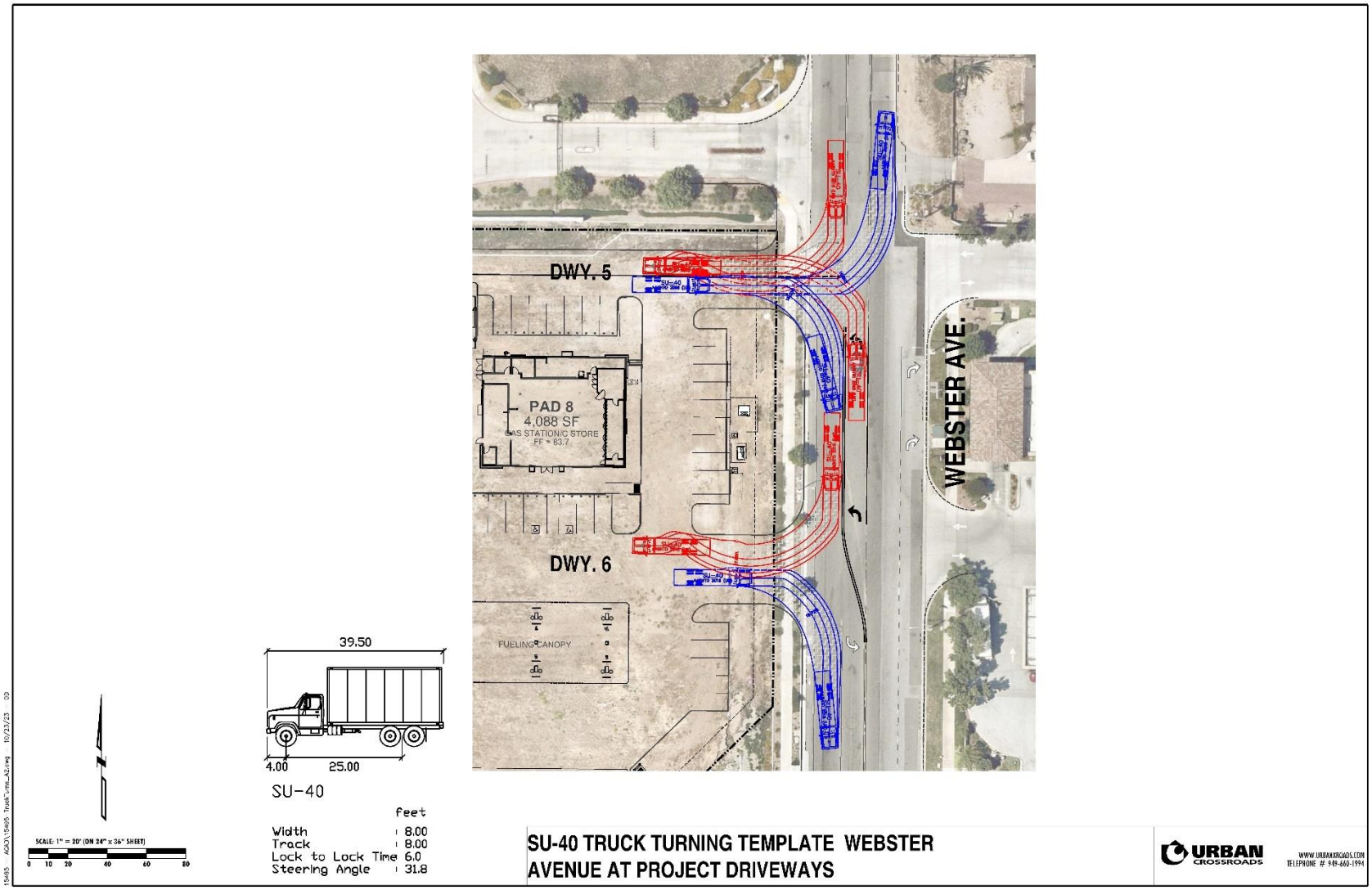
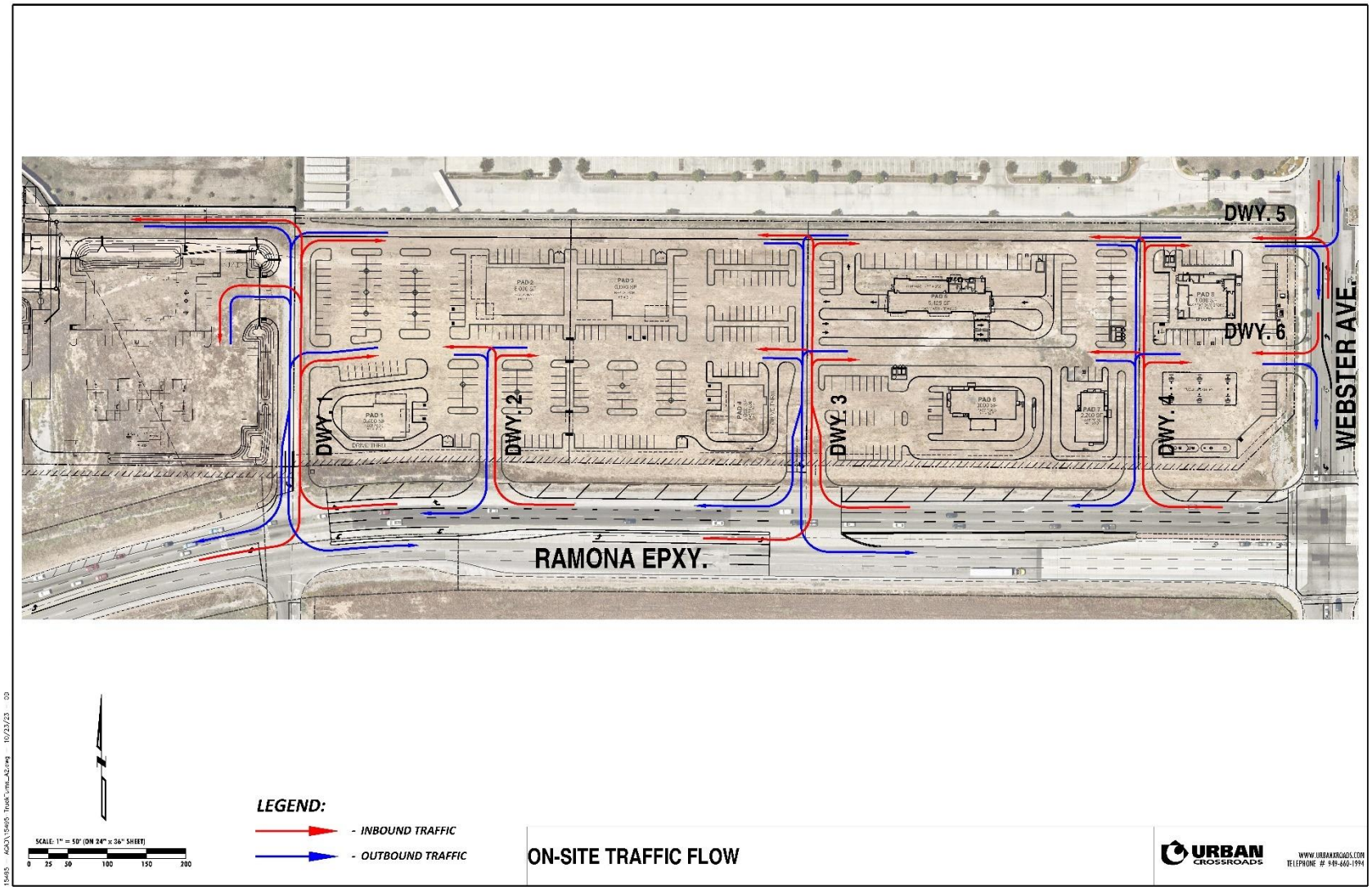


EXHIBIT 1-10: ON-SITE CIRCULATION



1.8.3 AFFORDABLE HOUSING

The City Guidelines state, if a project consists of 100% affordable housing, then the presumption can be made that it will have a less than significant impact on VMT. The Project does not intend to develop any residential uses.

Affordable Housing screening criteria not met.

1.8.4 HIGH QUALITY TRANSIT AREAS (HQTA) SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"1 or an existing stop along a "high-quality transit corridor"2) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The City Guidelines provide a map of Transit Priority Areas (TPAs) within the City of Perris. The Project site was located on the map, and it was determined that the Project is not located within a TPA (see Attachment B).

HQTA screening criteria is not met.

1.8.5 LOCAL-SERVING LAND USE

As identified in the City Guidelines, local serving land uses provide more opportunities for residents and employees to shop, dine, and obtain services closer to home and work. The proposed Project of sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of storage building use. All components of the Project are local serving in nature as they provide greater dining, fueling, and storage opportunities to the local community thereby improving destination proximity and leading to shortened vehicle trips.

Local-Serving Land Use screening criteria is met.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
2 Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

1.8.6 LOW VMT AREA SCREENING

The City Guidelines state, "Projects that locate in areas with low VMT, and that incorporate similar features (i.e., land use type, access to the circulation network, etc.), will tend to exhibit similarly low VMT." It is our understanding that the City of Perris utilizes its own VMT scoping form to identify areas of low VMT. The scoping form uses the sub-regional Riverside County Transportation Analysis Model (RIVTAM) to measure VMT performance in individual traffic analysis zones (TAZs) within the Western Riverside Council of Governments (WRCOG) region. First, the Project's physical location based on the WRCOG web-based screening tool is used to determine the TAZ in which the Project resides. The TAZ identification number is then selected within the scoping form and the VMT generated by the existing TAZ is compared to the City's impact threshold of VMT per employee as all components of the Project are non-residential. The proposed Project is located in two TAZs. The self-storage facility and the two fast-food restaurants sit on the northern and western portion of the site respectively and are located in TAZ 3736. TAZ 3736 is not part of the Perris Scoping form and does not have any existing VMT information, therefore a determination of low VMT area cannot be made for this TAZ. The remainder of the Project is located on the southeastern portion of the Project site in TAZ 3754 and the VMT per employee is 12.19. Since the Project's TAZ VMT exceeds the City of Perris citywide VMT average of 11.62, the Project does not reside within a low VMT generating area.

Low VMT Area screening criteria is not met.

1.8.7 NET DAILY TRIPS LESS THAN 500 ADT

The City Guidelines indicates that projects that generate less than 500 average daily trips (ADT) would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT. The self-storage component is expected to generate 118 two-way daily trips; however, the remaining components are expected to exceed the 500 ADT threshold (see Attachment D).

Net Daily Trips Less Than 500 ADT screening criteria is met for only the self-storage component.

1.8.8 CONCLUSION

As the Project's self-storage component meets the Net trips Less than 500 ADT screening criteria and the entire Project was found to meet the Local Serving Land Use screening criteria. The Project in its entirety is presumed to have a **less than significant VMT impact**.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Perris's Traffic Study Guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (4) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Perris requires signalized intersection operations analysis based on the methodology described in the HCM. (4) Intersection LOS operations are based on an intersection's average control delay. Control delays include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is related to the average control delay per vehicle and is correlated to a LOS designation as described on Table 2-1.

The traffic modeling and signal timing optimization software package Synchro (Version 11) is utilized to analyze signalized intersections within the study area. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Customary practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (4)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Perris requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the California Department of Transportation (Caltrans) California Manual on Uniform Traffic Control Devices *(CA MUTCD)* for all study area intersections. (5)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (5) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used as posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used where speeds exceed 40 miles per hour.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants. A traffic signal warrant analysis was performed for the following study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection
3	Driveway 1/Nevada Rd. & Ramona Exwy.
5	Driveway 3 & Ramona Exwy.
7	Webster Av. & Driveway 5

Although unsignalized, the intersections of Driveway 2 & Ramona Expressway (#4), Driveway 4 & Ramona Expressway (#6), and Driveway 6 & Ramona Expressway (#8) are proposed for right-in/right-out access only. As such, traffic signal warrants have not been evaluated due to the access restrictions and infeasibility of a signal installation at these locations. The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Conditions* and Section 6 *EAC & EAPC (2026) Traffic Conditions* of this report. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 QUEUING ANALYSIS

Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections at the I-215 Freeway at the Ramona Expressway interchange. Specifically, the off-ramp queuing analysis is utilized to identify any potential queuing and “spill back” onto the I-215 Freeway mainline from the off-ramps. The 95th percentile queue has also been utilized to assess the queues at the turn pockets at all study area intersections to identify any potential queuing.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The footnote from the Synchro output sheets indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations.

2.5 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from the City of Perris' General Plan. LOS D along all City maintained roads (including intersections) and LOS D along I-215 and SR-74 (including intersections with local streets and roads). An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway, or at I-215 Freeway ramps. (6)

LOS E may be allowed within the boundaries of the Downtown Specific Plan Area to the extent that it would support transit-oriented development and walkable communities. Increased congestion in this area will facilitate an increase in transit ridership and encourage development of a complementary mix of land uses within a comfortable walking distance from light rail stations.

For the purposes of this traffic impact analysis, LOS D has also been considered the acceptable threshold for all study area intersections.

2.6 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. The following deficiency criteria has been utilized for the City of Perris. To determine whether the addition of project-related traffic at a study intersection would result in a deficiency, the following will be utilized:

- A project-related deficiency is considered direct and significant when a study intersection operates at an acceptable LOS for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more and causes the intersection to operate at an unacceptable LOS for existing plus project (E+P) traffic conditions.
- A project-related deficiency is considered direct and significant when a study intersection operates at an unacceptable LOS for existing conditions (without the project) and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more.
- A cumulative deficiency is considered direct and significant when a study intersection is forecast to operate at an acceptable LOS without the project and the addition of 50 or more AM or PM peak hour project trips causes the intersection to delay increase by 2 seconds or more and causes the intersection to operate at an unacceptable LOS for existing plus project (E+P) traffic conditions.
- A cumulative deficiency is considered indirect and significant when a study intersection is forecast to operate at an unacceptable LOS and the addition of 50 or more AM or PM peak hour project trips causes the intersection delay to increase by 2 seconds or more.

2.7 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TA identifies that the Project would contribute additional traffic volumes to traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future (EAPC) traffic less existing baseline traffic:

Project Fair Share % = Project AM/PM Traffic / (2026 With Project AM/PM Total Traffic – Existing (2023) AM/PM Traffic)

The project fair share percentage has been calculated for both the AM peak hour and PM peak hour and the highest of the two has been selected. The Project fair share contribution calculations are presented in Section 7 *Local and Regional Funding Mechanisms* of this TA.

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Perris General Plan Circulation Network, and a review of existing peak hour intersection operations, traffic signal warrant, off-ramp queueing, and turn-pocket queuing analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Perris staff (Appendix 1.1), the study area includes a total of 13 existing and future intersections as shown previously on Exhibit 1-3. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Perris. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Perris General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Perris General Plan Circulation Element and Exhibit 3-3 describes the City of Perris General Plan roadway cross-sections. The study area roadways that lie within the City of Perris are described below.

Expressways are designed to accommodate six to eight travel lanes with a raised median, within a 184-foot right of way. The following study area roadway within the City of Perris is classified as an Expressway:

- Ramona Expressway

Arterials are designed to accommodate six travel lanes with a raised median, within a 128-foot right of way. The following study area roadways within the City of Perris are classified as Arterials:

- Perris Boulevard
- Evans Road

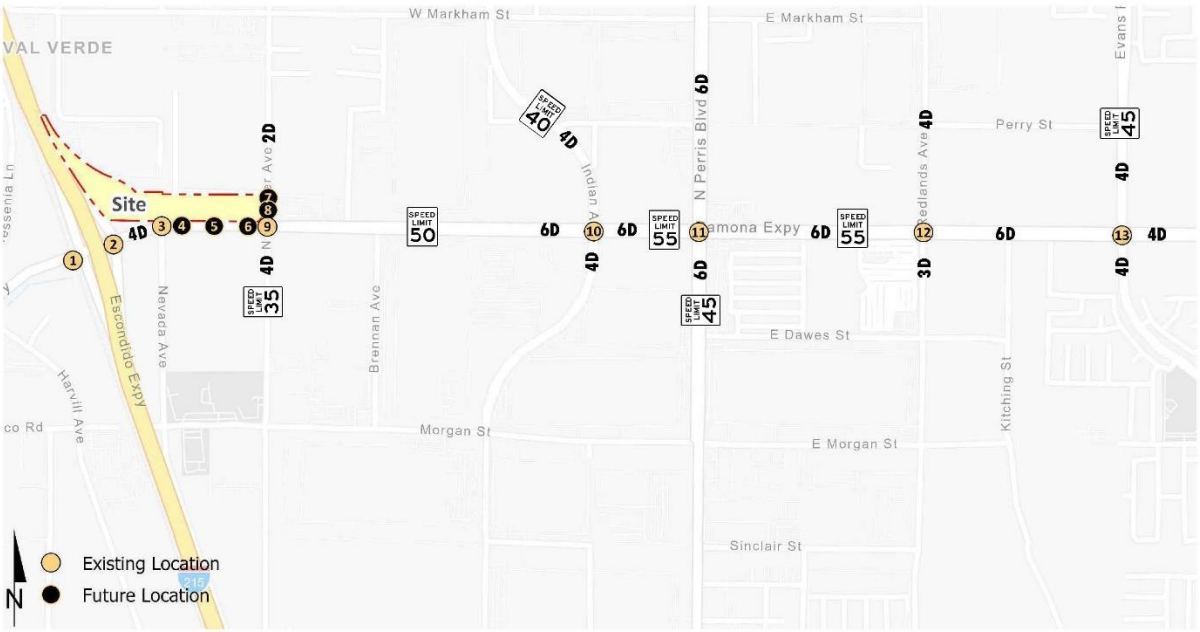
Secondary Arterials are designed to accommodate four travel lanes with a raised or painted median, within a 94-foot right of way. The following study area roadways within the City of Perris are classified as Secondary Arterials:

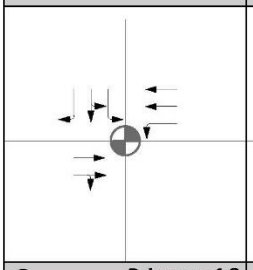
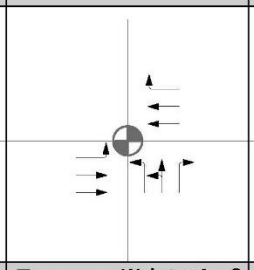
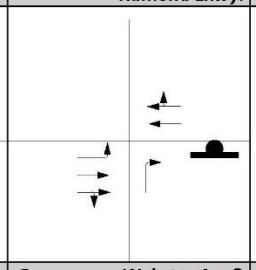
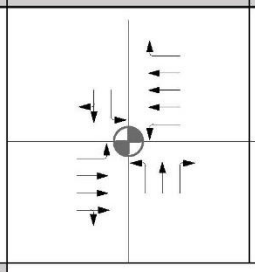
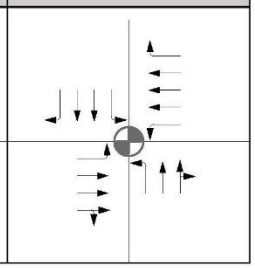
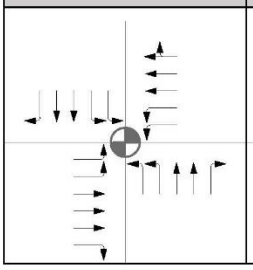
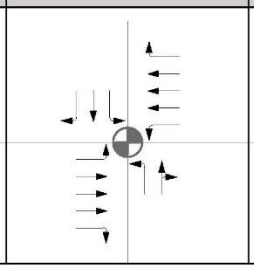
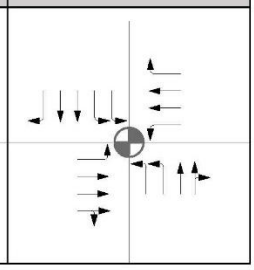
- Webster Avenue
- Indian Avenue
- Redlands Avenue

Collectors are designed to accommodate two travel lanes without a median, within a 66-foot right of way. The following study area roadway within the City of Perris is classified as a Collector:

- Nevada Avenue

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



1 1-215 SB Ramps & Ramona Exwy.	2 1-215 NB Ramps & Ramona Exwy.	3 Driveway 1 / Nevada Av. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
			Future Intersection	Future Intersection
6 Driveway 4 & Ramona Exwy.	**7 Webster Av. & Driveway 5**	**8 Webster Av. & Driveway 6**	**9 Webster Av. & Ramona Exwy.**	**10 Indian Av. & Ramona Exwy.**
Future Intersection	Future Intersection	Future Intersection		
11 Perris Bl. & Ramona Exwy.	**12 Redlands Av. & Ramona Exwy.**	**13 Evans Rd. & Ramona Exwy.**		
				

SPEED LIMIT 55 = Speed Limit (MPH)
4 = Number of Lanes
D = Divided
U = Undivided
= Traffic Signal
= Stop Sign
= Traffic Lane

EXHIBIT 3-2: CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

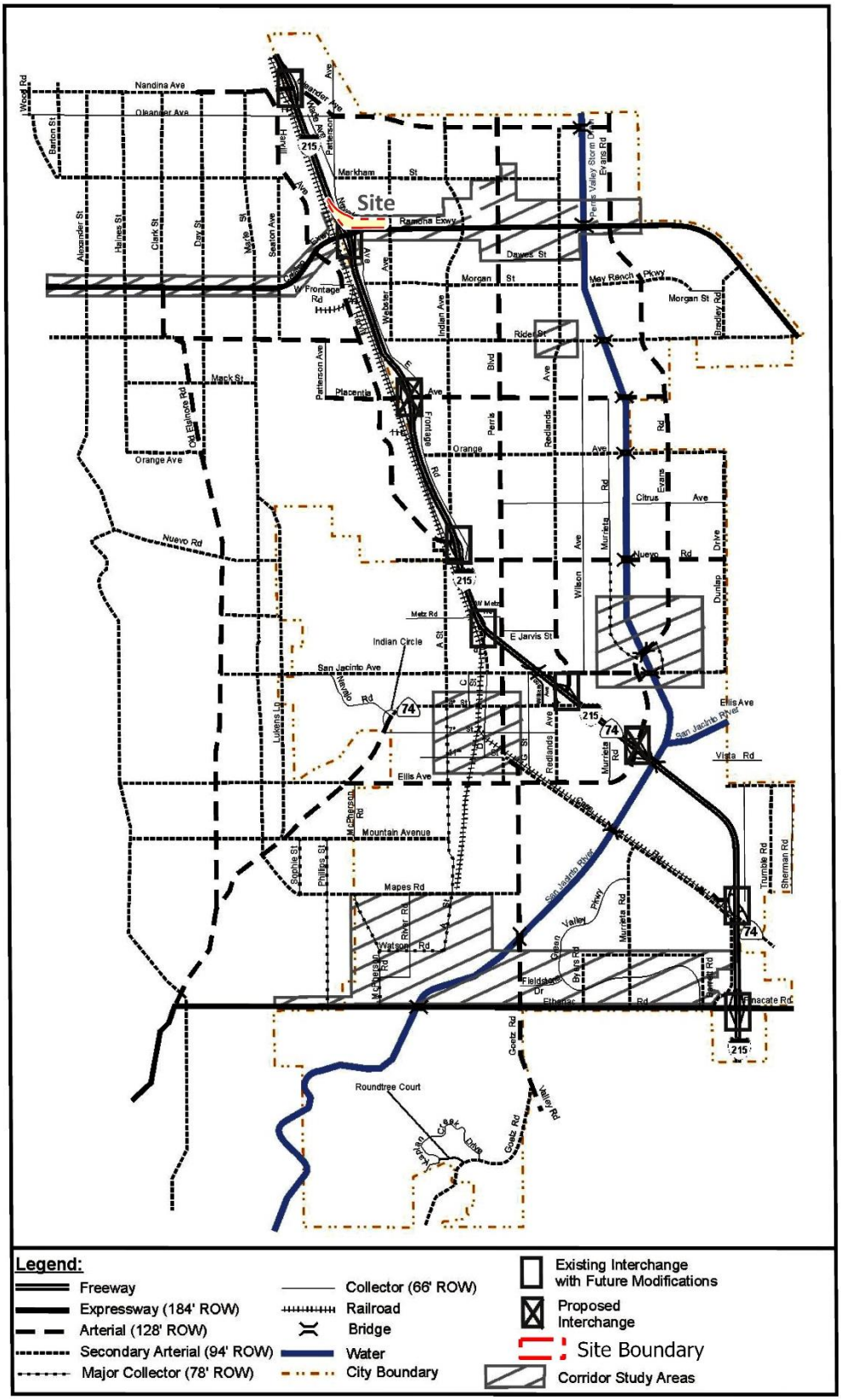
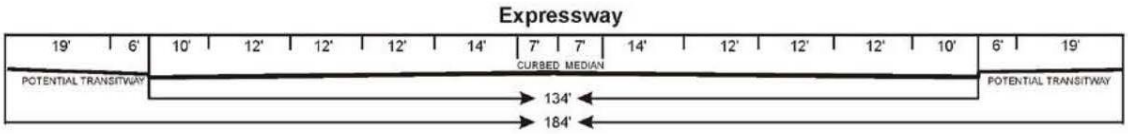
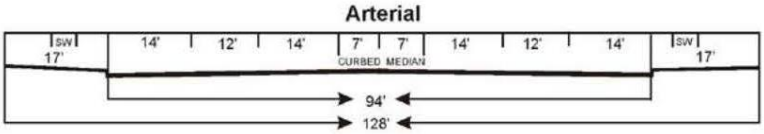
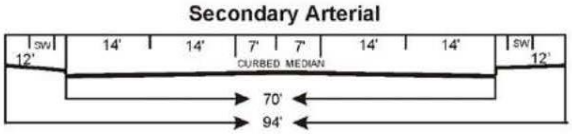


EXHIBIT 3-3: CITY OF PERRIS GENERAL PLAN ROADWAY CROSS-SECTIONS







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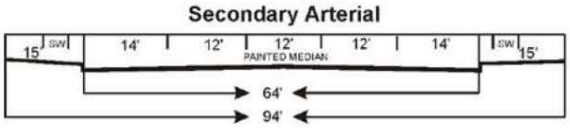
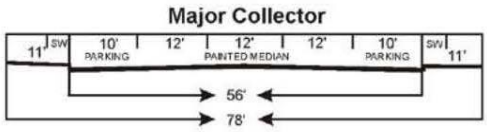
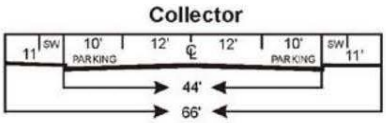
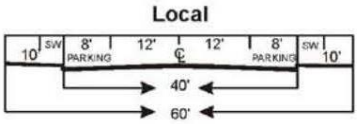








Specific details for each cross-section follow in Figures 4.1 A - 4.1 F

Legend

SW	Sidewalk or Trail (at least 4 feet)	CURBED MEDIAN	Landscaped Center Median
PARKING	Parking or Bike Lane		
PAINTED MEDIAN	Center Median and/or Continuous Left Turning Lane		

3.3 BICYCLE, EQUESTRIAN, & PEDESTRIAN FACILITIES

Field observations indicate nominal pedestrian and bicycle activity within the study area. As shown on Exhibit 3-4, pedestrian facilities are built out along portions of Ramona Expressway and Webster Avenue. The City of Perris bike networks are shown on Exhibit 3-5. As shown on Exhibit 3-5, there is a Class IV separate bike lane recommended along Ramona Expressway, a Class IIIB bicycle boulevard recommended along Webster Avenue, and a Class I shared-use bike path along Nevada Avenue.

3.4 EXISTING TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in May 2023 when local schools were in session and operating on a typical bell schedule. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The 2023 weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

Existing weekday ADT volumes are shown on Exhibit 3-6. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 16.16 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 6.19 percent. As such, the above equation utilizing a factor of 16.16 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 6.19 percent (i.e., 1/0.0619 = 16.16) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are also shown on Exhibit 3-6.

3.5 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized on Table 3-1, which indicates that all of the study area intersections are currently operating at an acceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

EXHIBIT 3-4: EXISTING PEDESTRIAN FACILITIES

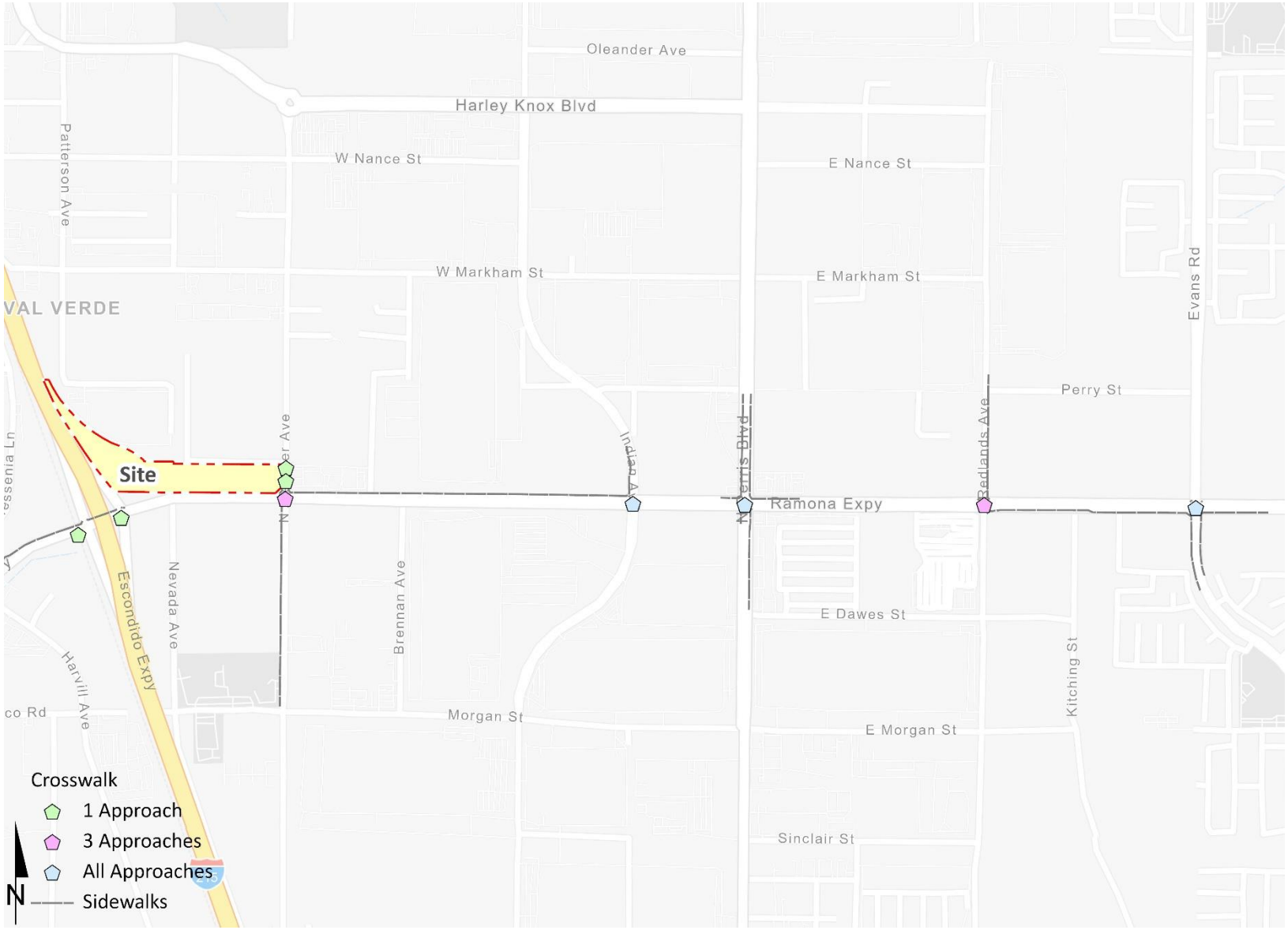


EXHIBIT 3-5: CITY OF PERRIS BIKE NETWORK

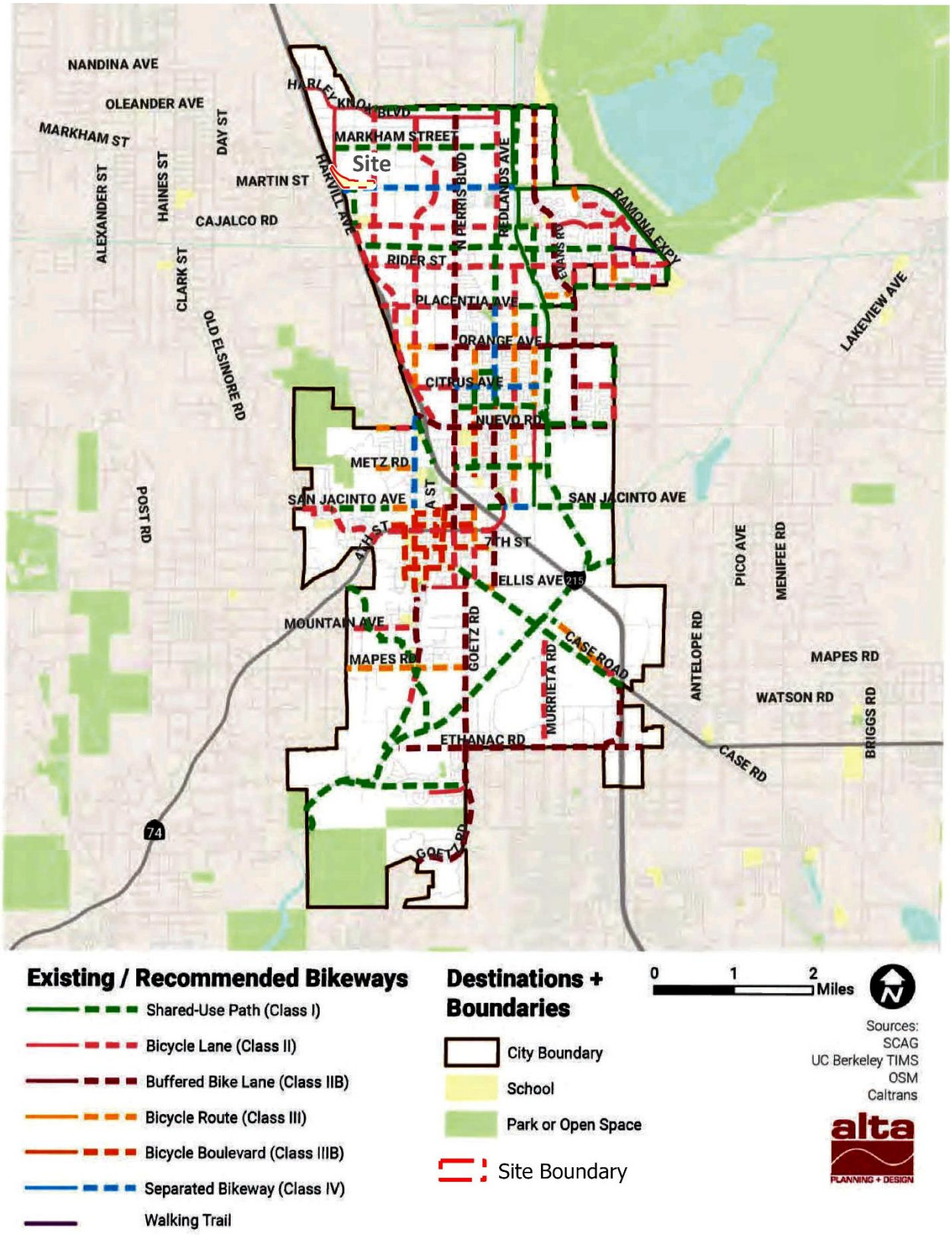
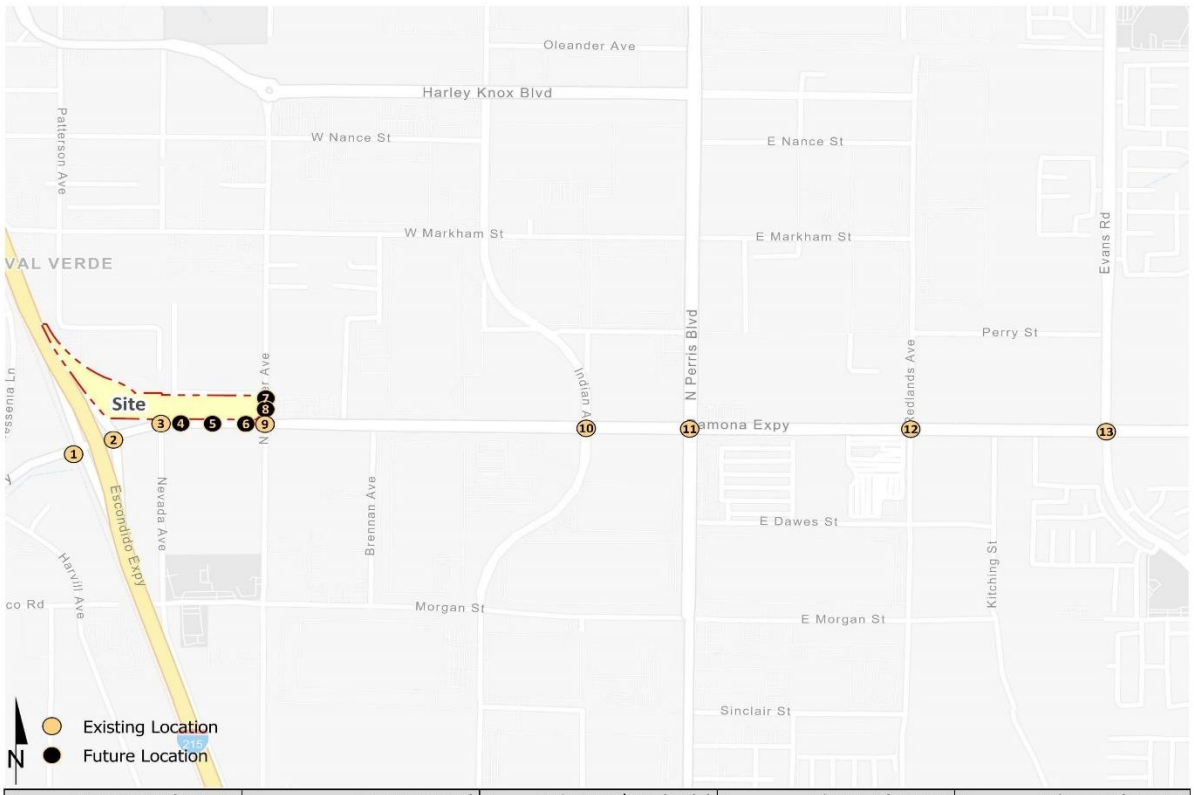
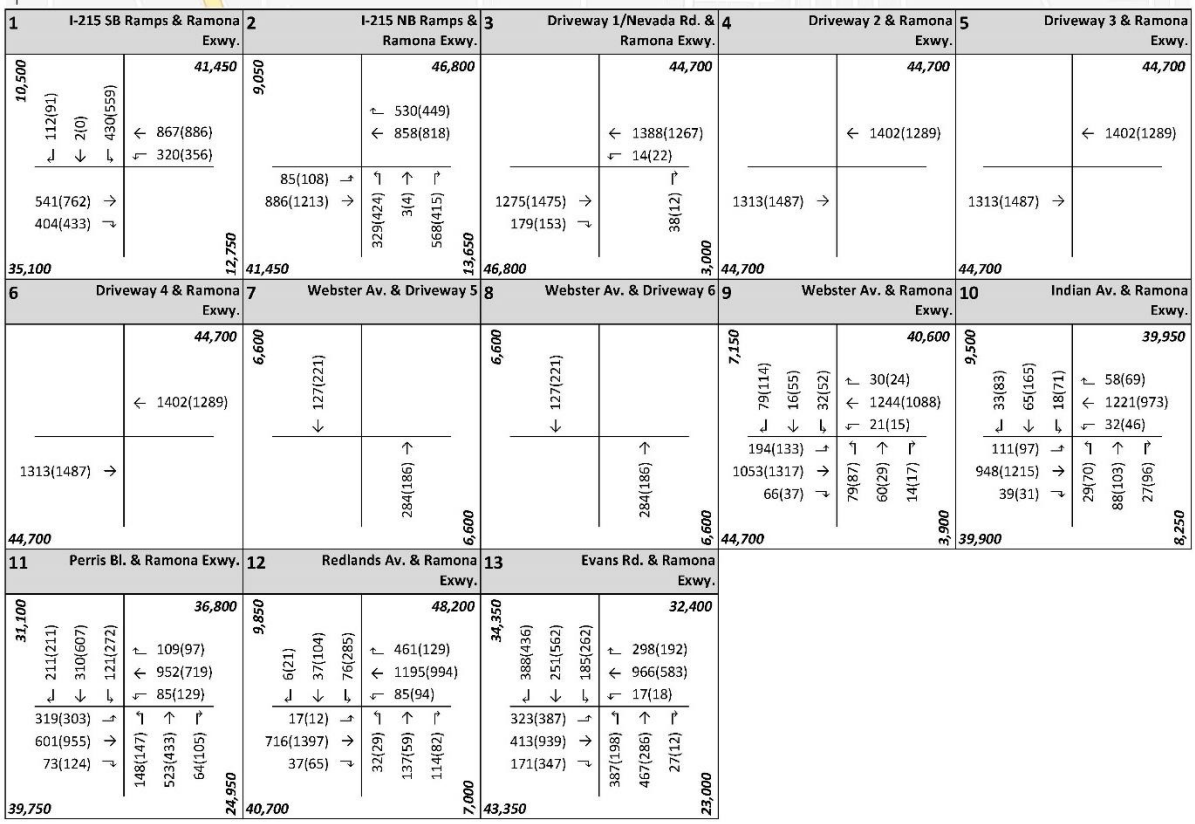


EXHIBIT 3-6: EXISTING (2023) TRAFFIC VOLUMES





##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	I-215 SB Ramps & Ramona Exwy.	TS	25.7	30.6	C	C
2	I-215 NB Ramps & Ramona Exwy.	TS	19.3	16.4	B	B
3	Driveway 1/Nevada Rd. & Ramona Exwy.	CSS	16.3	17.5	C	C
4	Driveway 2 & Ramona Exwy.		Future Intersection			
5	Driveway 3 & Ramona Exwy.		Future Intersection			
6	Driveway 4 & Ramona Exwy.		Future Intersection			
7	Webster Av. & Driveway 5		Future Intersection			
8	Webster Av. & Driveway 6		Future Intersection			
9	Webster Av. & Ramona Exwy.	TS	20.1	18.9	C	B
10	Indian Av. & Ramona Exwy.	TS	17.0	19.5	B	B
11	Perris Bl. & Ramona Exwy.	TS	43.3	43.7	D	D
12	Redlands Av. & Ramona Exwy.	TS	16.3	25.6	B	C
13	Evans Rd. & Ramona Exwy.	TS	36.1	25.6	D	C

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop

3.6 SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. There are no unsignalized study area intersections that currently warrant a traffic signal for Existing traffic conditions. Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.7 QUEUING ANALYSIS

3.7.1 OFF-RAMPS

A queuing analysis was performed for the off-ramps at the I-215 Freeway at Ramona Expressway interchange. Off-ramp queuing analysis findings are presented in Table 3-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 3-2, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing (2023) traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

TABLE 3-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR EXISTING (2023) CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps & Ramona Exwy.	SBL	510	242	336 [2]	Yes	Yes
	SBL/T	1,110	245	336 [2]	Yes	Yes
	SBR	510	47	43	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	NBL	1,120	128	181	Yes	Yes
	NBL/T	510	131	186	Yes	Yes
	NBR	510	479 [2]	323	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

3.7.2 ROADWAYS

A queuing analysis was performed for the turn pockets-ramps at the study area intersections. Turn pocket queuing analysis findings are presented in Table 3-2. As shown in Table 3-3, the following movements are currently experiencing turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM peak hour only
- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) southbound right-turn – AM peak hour only

Worksheets for Existing (2023) traffic conditions turn pockets queuing analysis are also provided in Appendix 3.4.

TABLE 3-3: PEAK HOUR TURN POCKET QUEUING SUMMARY FOR EXISTING (2023) CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps & Ramona Exwy.	WBL	115	125	**348** [2]	Yes	**No**
I-215 NB Ramps & Ramona Exwy.	EBL	115	106 [3]	98 [3]	Yes	Yes
	WBR	155	**195**	133	**No**	Yes
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	125	0	0	Yes	Yes
	WBL	130	3	5	Yes	Yes
Webster Av. & Ramona Exwy.	NBL	200	169 [2]	181 [2]	Yes	Yes
	SBL	130	63 [2]	114 [2]	Yes	Yes
	EBL	200	**354** [2]	**253** [2]	**No**	**No**
	WBL	200	44	36	Yes	Yes
Indian Av. & Ramona Exwy.	NBL	195	146	106	Yes	Yes
	SBL	185	40	106	Yes	Yes
	SBR	175	0	0	Yes	Yes
	EBL	190	146	134	Yes	Yes
	WBL	280	59	77	Yes	Yes
	WBR	260	0	0	Yes	Yes
Perris Bl. & Ramona Exwy.	NBL	350	94	93	Yes	Yes
	NBR	150	0	9	Yes	Yes
	SBL	200	80	158	Yes	Yes
	SBR	145	55	64	Yes	Yes
	EBL	330	173	172	Yes	Yes
	EBR	215	0	20	Yes	Yes
	WBL	300	53	87	Yes	Yes
Redlands Av. & Ramona Exwy.	NBL	200	58	55	Yes	Yes
	SBL	280	104	**416** [2]	Yes	**No**
	EBL	315	37	32	Yes	Yes
	EBR	315	0	0	Yes	Yes
	WBL	300	118	184 [2]	Yes	Yes
	WBR	260	77	33	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	200	196 [2]	117	Yes	Yes
	SBL	215	114	147	Yes	Yes
	SBR	215	**266**	166	**No**	Yes
	EBL	325	196 [2]	202	Yes	Yes
	EBR	330	44	58	Yes	Yes
	WBL	310	39	39	Yes	Yes
	WBR	200	121	56	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
[3] Volume for 95th percentile queue is metered by upstream signal

3.8 DEFICIENCIES AND IMPROVEMENTS

3.8.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The study area intersections currently operate at an acceptable LOS during the peak hours. As such, no improvements have been identified.

3.8.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON TURN POCKET QUEUES

Improvement strategies have been recommended at turn pockets that been identified to experience queuing issues under Existing (2023) traffic conditions. The effectiveness of the recommended improvement strategies to address queuing deficiencies are presented in Table 3-4. It should be noted, improvements have only been identified if they are feasible, based on the existing geometry of the turn pockets.

TABLE 3-4: PEAK HOUR QUEUING SUMMARY FOR EXISTING (2023) CONDITIONS WITH IMPROVEMENTS

			Existing (2023)			
		Available Stacking	95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement	Distance (Feet)[4]	AM Peak	PM Peak	AM	PM
Webster Av. & Ramona Exwy.	EBL	**450**	354 [2]	253 [2]	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	**300**	196 [2]	117	Yes	Yes
	SBR	**425**	266	166	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] **100** = Improvement

4 PROJECTED FUTURE TRAFFIC

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. Vehicular access will be provided via the following driveways:

- Driveway 1 on Ramona Expressway – signalized access to align with Nevada Avenue
- Driveway 2 on Ramona Expressway – right-in/right-out access driveway
- Driveway 3 on Ramona Expressway – signalized full access assumed to align with future development on the South of Ramona Expressway
- Driveway 4 on Ramona Expressway – right-in/right-out access driveway
- Driveway 5 on Webster Avenue – full access driveway
- Driveway 6 on Webster Avenue – right-in/right-out access driveway

Regional access to the Project site is accommodated from the I-215 Freeway via Ramona Expressway.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021). (2)

Trip generation rates for the proposed uses are summarized in Table 4-1. A summary of the proposed Project trip generation is shown on Table 4-2. As shown in Table 4-2, the proposed Project is anticipated to generate 14,394 two-way trips per day with 747 AM peak hour trips and 590 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION RATES

	ITE Land		AM Peak Hour			PM Peak Hour			
Land Use[1]	Use Code	Units[2]	In	Out	Total	In	Out	Total	Daily
Mini-Warehouse	151	TSF	0.05	0.04	0.09	0.07	0.08	0.15	1.45
High Turnover (Sit-Down) Restaurant	932	TSF	5.26	4.31	9.57	5.52	3.53	9.05	107.20
Fast-Food Restaurant With Drive-Thru	934	TSF	22.75	21.86	44.61	17.18	15.85	33.03	467.48
Gas Station (Market >4,000 SF)	945	VFP	13.52	13.52	27.04	11.38	11.38	22.76	257.13
Gas Station (Market >5,500 SF)	945	VFP	15.80	15.80	31.60	13.45	13.45	26.90	345.75
Automated Car Wash	948	TUN	N/A	N/A	N/A	38.75	38.75	77.50	775.00

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels

[3] The daily trip rate is assumed to be 10 times the PM peak hour total rate for Automated Car Wash land use (ITE Land Use Code 948)

TABLE 4-2: PROJECT TRIP GENERATION SUMMARY

			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Self-Storage	80.478	TSF	4	3	7	6	6	12	118
High Turnover (Sit-Down) Restaurant	12.000	TSF	63	52	115	66	42	108	1,286
Internal Capture:			0	0	0	-1	-3	-4	-80
Pass-by Trip Reduction (PM = 43%; Daily = 25%):			0	0	0	-17	-17	-34	-302
Fast-Food Restaurant With Drive-Thru	18.400	TSF	419	402	821	316	292	608	8,602
Internal Capture:			0	0	0	-10	-17	-27	-514
Pass-by Trip Reduction (AM = 50%; PM = 55%; Daily = 25%):			-201	-201	-402	-151	-151	-302	-2,022
Gas Station (Market >4,000 SF)	12	VFP	162	162	324	137	137	274	3,086
Internal Capture (10%):			-16	-16	-32	-14	-14	-27	-309
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-111	-111	-222	-92	-92	-184	-694
Gas Station (Market >5,500 SF)	20	VFP	316	316	632	269	269	538	6,916
Internal Capture (10%):			-32	-32	-63	-27	-27	-54	-692
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-216	-216	-432	-182	-182	-364	-1,556
Automated Car Wash	1	TUN	0	0	0	39	39	78	776
Internal Capture:			0	0	0	-20	-11	-31	-222
Total Gross Trips (No Reductions)			964	935	1,899	833	785	1,618	20,784
Total Internal Capture Trips			-48	-48	-96	-72	-72	-143	-1,816
Total Pass-By Reduction Trips			-528	-528	-1,056	-442	-442	-884	-4,574
Total Gross Trips minus Internal Capture Reduction			916	887	1,803	761	713	1,474	18,968
Total Net Project Trips			**388**	**359**	**747**	**319**	**271**	**590**	**14,394**

[1] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels

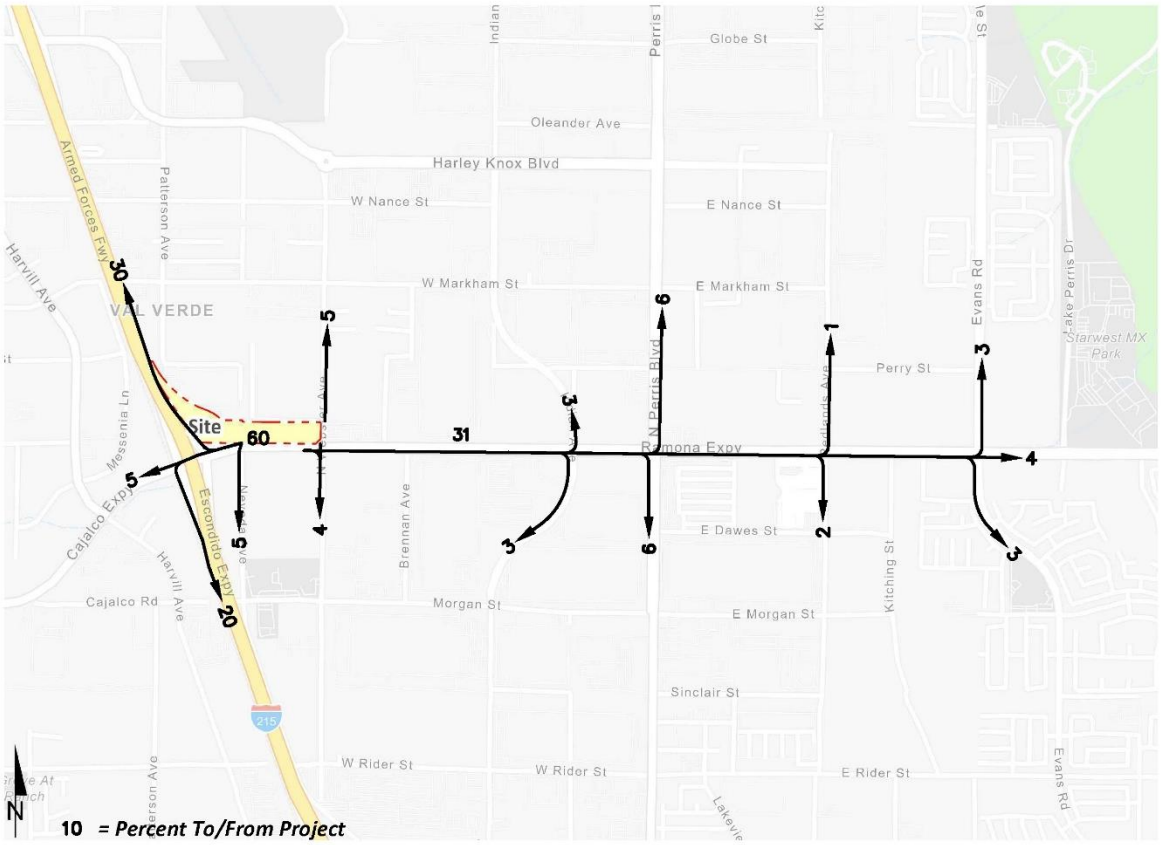
4.2 PROJECT TRIP DISTRIBUTION

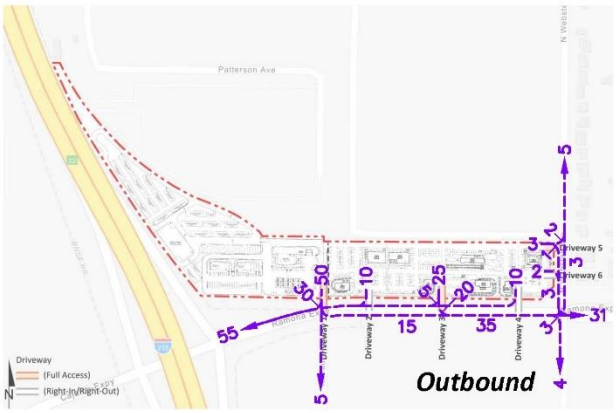
The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site and are consistent with other similar projects that have been reviewed and approved by City of Perris staff. Distribution patterns were based on existing and planned land uses and roadway infrastructure in the area. The trip distribution is shown on Exhibit 4-1.

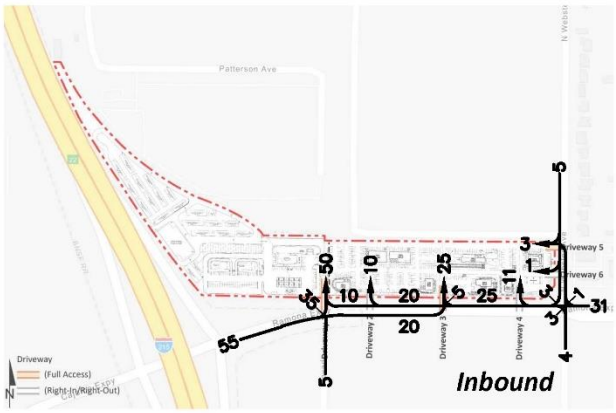
4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION







4.4 PROJECT TRIP ASSIGNMENT

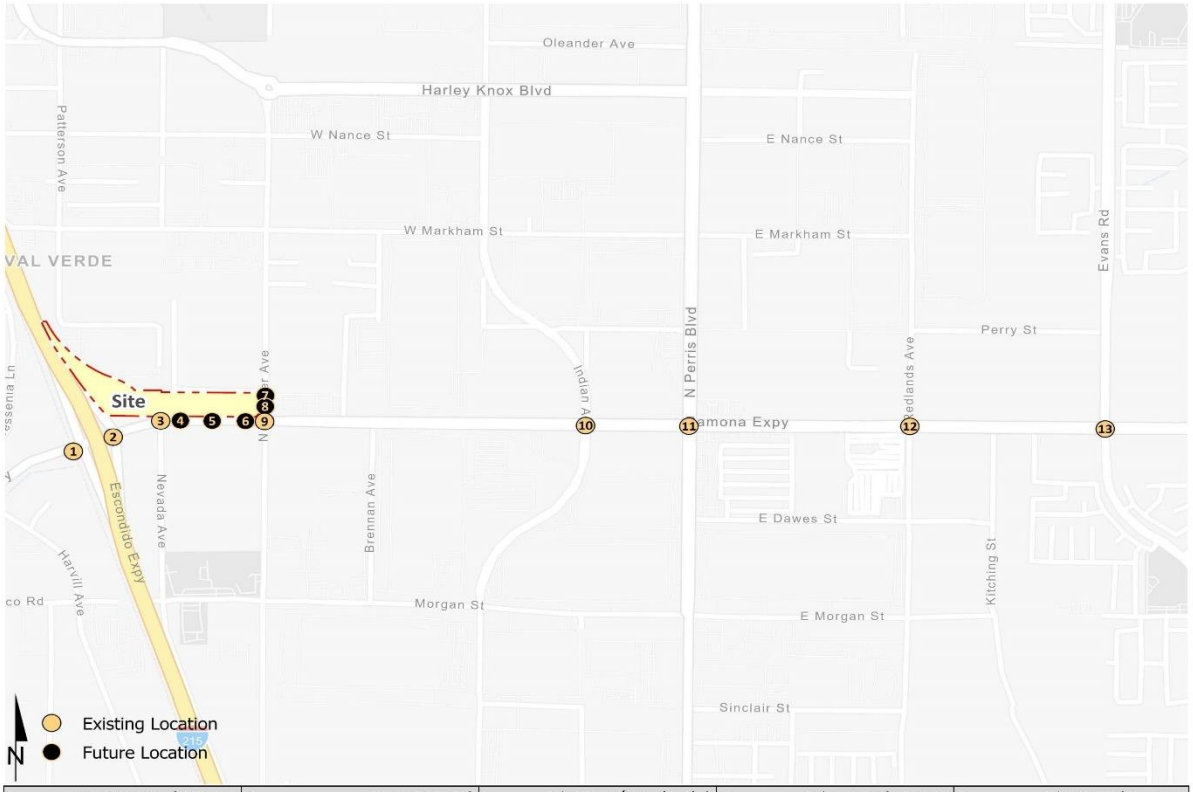
The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday/weekend peak hour intersection turning movement volumes are shown on Exhibit 4-2.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 3% per year, compounded annually, for 2026 conditions. The total ambient growth is 9.27% for 2026 traffic conditions (compounded growth of 3 percent per year over 2 years or $1.03^{3\ \text{years}}$). The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

The currently adopted Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (September 2020) growth forecasts for the City of Perris identifies projected growth in population of 74,900 in 2016 to 121,000 in 2045, or a 61.6 percent increase over the 29-year period. (7) The change in population equates to roughly a 1.67 percent growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 96.5 percent, or 2.36 percent annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 64.0 percent, or a 1.72 percent annual growth rate. This results in an average of 1.91 percent annual growth rate. As such, the 3.0 percent per year ambient growth rate utilized in this TA would appear to conservatively estimate annual traffic growth and overstate as opposed to understate future traffic forecasts.

EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



1 I-215 SB Ramps & Ramona Exwy.

2,150 / 4,300
116(96) ↳
← 18(14)
↰ 72(54)
19(16) →
700 / 1,450

2 I-215 NB Ramps & Ramona Exwy.

2,150 / 7,900
↱ 108(81)
← 90(68)
136(112) →
↱ 78(64)
4,300 / 1,450

3 Driveway 1/Nevada Rd. & Ramona Exwy.

11,250 / 5,050
250(197) ↲
18(14) ↓
212(176) ↳
↱ 181(148)
← -52(-48)
294(247) ↳
-80(-71) →
↑ 19(16)
7,900 / 700

4 Driveway 2 & Ramona Exwy.

1,700 / 5,050
53(45) ↲
↱ 56(50)
← 76(55)
131(104) →
5,050

5 Driveway 3 & Ramona Exwy.

4,550 / 5,050
51(43) ↲
122(94) ↳
↱ 52(45)
← 80(62)
128(104) ↳
4(1) →
5,050

6 Driveway 4 & Ramona Exwy.

2,150 / 5,100
↲ 125(99)
↱ 132(107)
← 8(8)
126(95) →
5,050

7 Webster Av. & Driveway 5

700 / 600
↲ 11(8)
↓ 9(8)
26(21) ↳
11(8) ↳
↰ 27(22)
↑ -8(-8)
600 / 700

8 Webster Av. & Driveway 6

650 / 200
↲ 17(14)
↓ 2(1)
20(16) ↳
↑ 19(15)
200 / 800

9 Webster Av. & Ramona Exwy.

800 / 5,100
↲ 12(10)
↓ 4(3)
↳ 7(5)
↱ 4(3)
← 116(96)
11(8) ↳
104(79) →
11(8) ↳
↰ 12(10)
↑ 4(3)
5,100 / 600

10 Indian Av. & Ramona Exwy.

450 / 4,450
↲ 12(10)
3,600
← 97(80)
11(8) ↳
90(68) →
11(8) ↳
↰ 12(10)
4,450 / 450

11 Perris Bl. & Ramona Exwy.

850 / 3,600
↲ 23(19)
1,850
← 50(41)
22(16) ↳
47(35) →
22(16) ↳
↰ 23(19)
3,600 / 850

12 Redlands Av. & Ramona Exwy.

150 / 1,850
↲ 4(3)
1,450
← 39(32)
4(3) ↳
36(27) →
7(5) ↳
↰ 8(6)
1,850 / 300

13 Evans Rd. & Ramona Exwy.

450 / 1,450
↲ 12(10)
600
← 16(13)
11(8) ↳
14(11) →
11(8) ↳
↰ 12(10)
1,450 / 450

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the County of Riverside and City of Perris. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e., 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-3, listed in Table 4-3, and have been considered for inclusion. Any additional traffic generated by other projects not on the cumulative projects list is likely accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative Only ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-4.

TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

No.	Project Name / Case Number	Land Use	Quantity	Units[1]
RC1	Majestic Freeway Business Center - Building 20	High-Cube Warehouse	426.821	TSF
RC2	Majestic Freeway Business Center - Building 21,22	Warehousing	241.059	TSF
RC3	Knox Logistics Center	High-Cube Warehouse	1,259.410	TSF
RC4	Oleander Business Park	High-Cube Warehouse	680.000	TSF
RC5	PPT190031	High-Cube Warehouse	418.000	TSF
RC6	Majestic Freeway Business Center - Building 19	Warehousing	364.560	TSF
RC7	Majestic Freeway Business Center - Building 12	Warehousing	154.751	TSF
RC8	Majestic Freeway Business Center - Building 15	Warehousing	90.279	TSF
RC9	Majestic Freeway Business Center - Building 11	High-Cube Warehouse	391.045	TSF
RC10	PPT180025: Seaton Commerce Center	High-Cube Warehouse	210.800	TSF
RC11	Majestic Freeway Business Center - Buildings 1, 3 & 4	Warehousing	48.930	TSF
		High-Cube Warehouse	1,195.740	TSF
RC12	Majestic Freeway Business Center - Building 18	High-Cube Warehouse	333.648	TSF
RC13	Majestic Freeway Business Center - Building 17	High-Cube Warehouse	268.955	TSF
RC14	Majestic Freeway Business Center - Building 14A/B	Warehousing	354.583	TSF
RC15	PPT210130	Warehousing	239.308	TSF
RC16	Harvill & Cajalco Warehouse	General Light Industrial	99.770	TSF
		Truck Trailer Yard	133	Spaces
RC17	PPT210022	General Light Industrial	98.940	TSF
RC18	PPT210133	Warehousing	350.481	TSF
RC19	Majestic Freeway Business Center - Building 19	Warehousing	322.997	TSF
P1	Canyon Steel (CS)	Industrial	25.000	TSF
P2	First March Logistics	Warehousing	589.971	TSF
P3	Duke - Patterson at Nance	High-Cube Warehouse	580.000	TSF
P4	Western Industrial (DRP19-00003)	High-Cube Warehouse	250.000	TSF
P5	Marijuana Manufacturing (MM)	Industrial	1.000	TSF
P6	AAA	Industrial	2.000	TSF
P7	Integra Expansion / MMOD 17-05075	High-Cube Warehouse	273.000	TSF
P8	Rados / DPR 07-0119	High-Cube Warehouse	1,200.000	TSF
P9	Patterson Commerce Center	High-Cube Fulfillment	224.247	TSF
		High-Cube Cold Storage	39.573	TSF
P10	Ramona Gateway Commerce Center	High-Cube Fulfillment	902.713	TSF
		High-Cube Cold Storage	47.511	TSF
		Fast-Food Restaurant w/ DT	16.500	TSF
		Fast-Food Restaurant w/o DT	10.200	TSF
		Coffee Shop w/ DT	2.400	TSF
		Automated Car Wash	1.000	Tunnel
		Gas Station w/ Market	16.000	VFP
P11	Ramona & Brennan	Warehousing	162.871	TSF
P12	Stratford Ranch East / TTM 38071	Single Family Detached	197	DU
	APN 302200005	Single Family Detached	19	DU
P13	Perris Truck Yard	Truck Yard	9.5	AC
P14	First Indus (Goodwin)	High-Cube Warehouse	338.000	TSF
P15	Kwasizur Industrial	Warehousing	138.000	TSF
P16	Patriot Industrial	Warehousing	286.000	TSF
P17	Lakecreek East and West	High-Cube Warehouse	556.000	TSF
P18	Harley Knox Commerce Park / DPR 16-004	High-Cube Warehouse	386.278	TSF
P19	Stratford Ranch West / TTM 36648 (70% Complete)	Single Family Detached	27	DU
P20	Rider 2/4	High-Cube Warehouse	1,373.449	TSF
P21	Pulliam Indus	Industrial	16.000	TSF
P22	Burge Indus	Industrial	37.000	TSF
P23	Nance Industrial	Warehousing	156.000	TSF
P24	Perris and Ramona Warehouse	Industrial	347.938	TSF
P25	JM Realty Perris and Indian	Warehouse	232.575	TSF
		Hotel	125	Room
P26	Harley Knox Commerce Center	Warehousing	156.780	TSF
P27	OLC3	High-Cube Fulfillment	774.419	TSF
		Strip Retail	30.825	TSF
		High-Turnover (Sit-Down) Restaurant	5.000	TSF
		Fast-Food Without Drive-Thru	23.775	TSF
		Fast-Food With Drive-Thru	10.400	TSF
JPA1	VIP 215	High-Cube Warehouse	2,219.850	TSF

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions; AC = Acres

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP

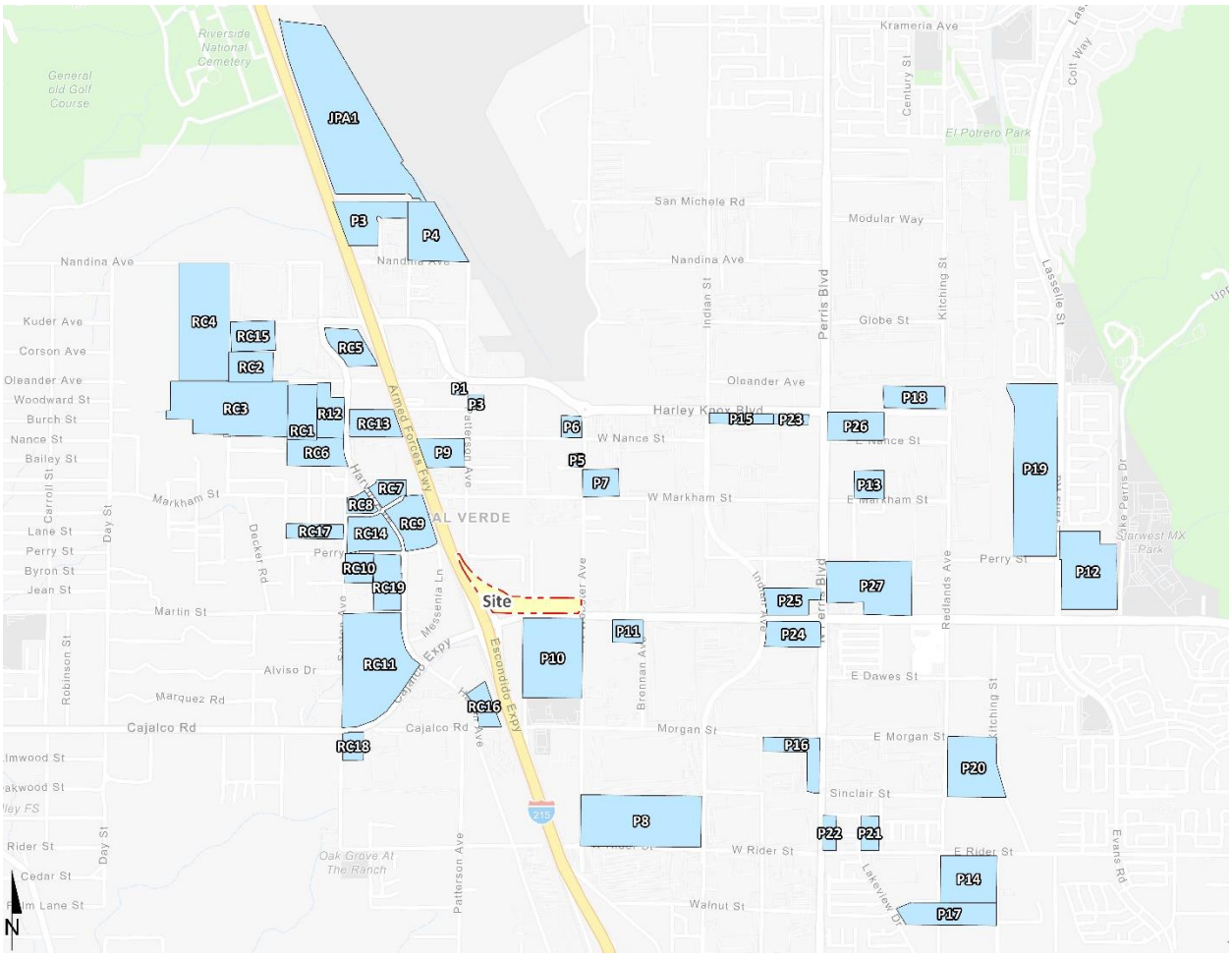
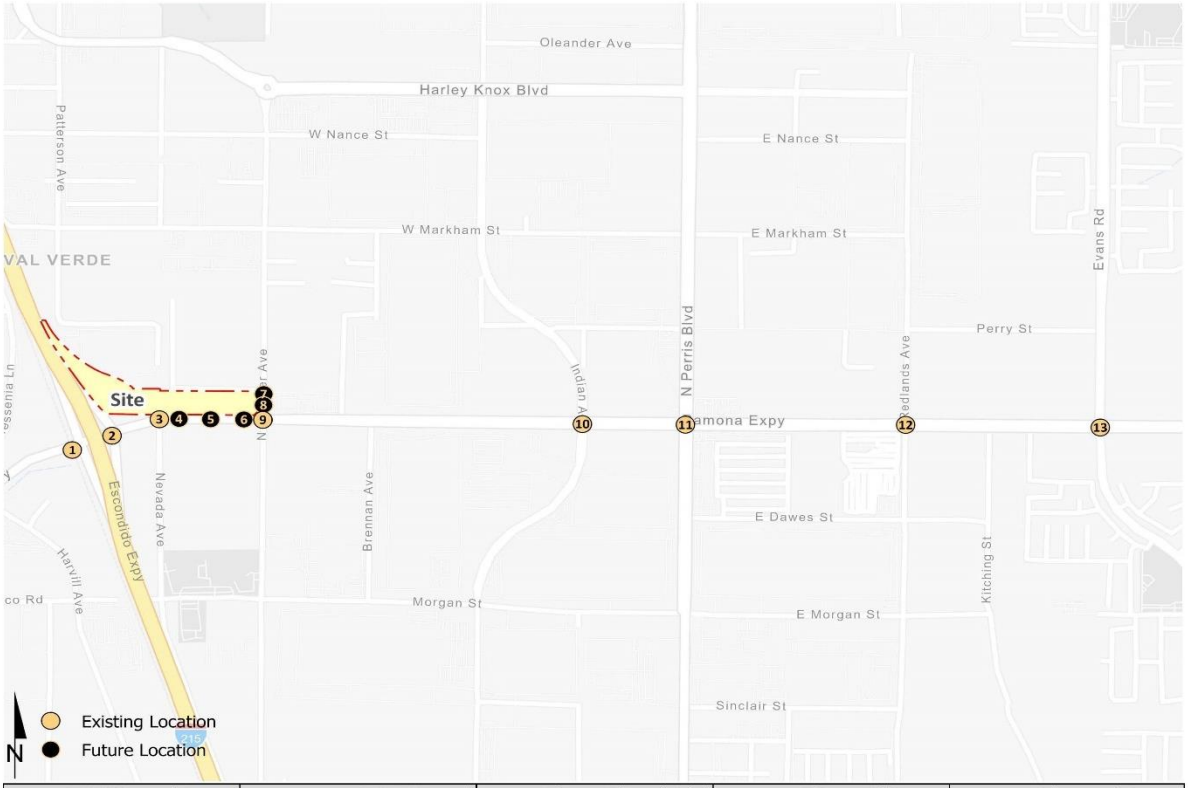
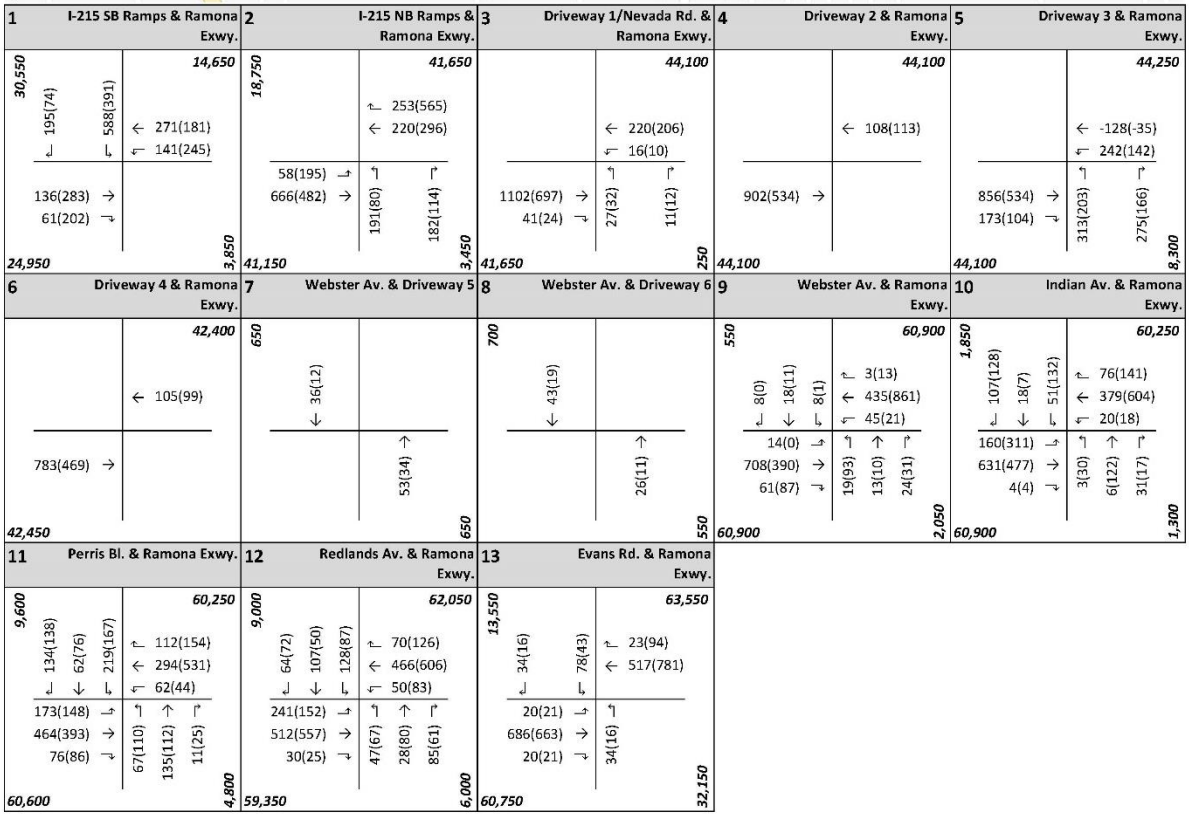


EXHIBIT 4-4: CUMULATIVE ONLY TRAFFIC VOLUMES





##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and turn-pocket queueing analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. The weekday ADT and weekday/weekend peak hour intersection turning movement volumes which can be expected for E+P traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

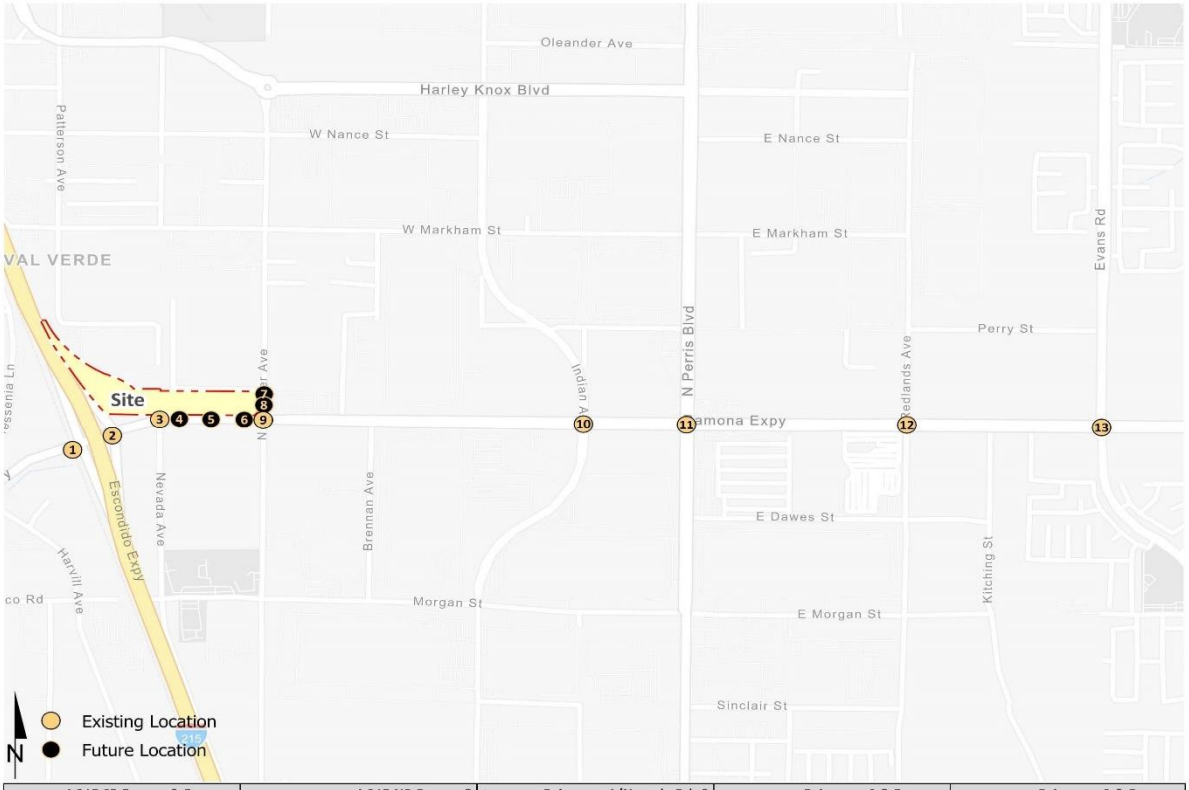
E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized on Table 5-1 for E+P traffic conditions, which indicate that all of the study area intersections are anticipated to continue to operate at an acceptable LOS under E+P traffic conditions, consistent with Existing traffic conditions. The intersection operations analysis worksheets for E+P Conditions are included in Appendix 5.1.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed for E+P traffic conditions based on peak hour intersection turning movements volumes or planning level (ADT) volumes. The following study area intersections are anticipated to meet a traffic signal warrant under E+P traffic conditions (see Appendix 5.2):

- Nevada Avenue/Driveway 1 & Ramona Expressway (#3)
- Driveway 3 & Ramona Expressway (#5)

EXHIBIT 5-1: E+P TRAFFIC VOLUMES



1 — I-215 SB Ramps & Ramona Exwy. (13,650 / 49,600 / 39,100 / 15,350)

↳ 112(91)	↓ 2(0)	↰ 546(655)	↱ 885(900)	← 392(410)	
560(778) →					
404(433) ↴					

2 — I-215 NB Ramps & Ramona Exwy. (12,050 / 59,050 / 49,600 / 16,350)

			↱ 638(530)	← 948(886)	
85(108) ↳			↰ 329(424)	↑ 3(4)	↱ 646(479)
1022(1325) →					

3 — Driveway 1/Nevada Rd. & Ramona Exwy. (11,250 / 53,900 / 59,050 / 4,000)

↳ 250(197)	↓ 18(14)	↰ 212(176)	↱ 181(148)	← 1336(1219)	↰ 14(22)
294(247) ↳			↑ 19(16)	↱ 38(12)	
1195(1404) →					
179(153) ↴					

4 — Driveway 2 & Ramona Exwy. (1,700 / 53,900 / 53,900)

↳ 53(45)	↱ 56(50)	← 1478(1344)
1444(1591) →		

5 — Driveway 3 & Ramona Exwy. (4,550 / 53,900 / 53,900)

↳ 51(43)	↳ 122(94)	↱ 52(45)	← 1482(1351)
128(104) ↳			
1317(1488) →			

6 — Driveway 4 & Ramona Exwy. (2,150 / 53,950 / 53,900)

↳ 125(99)	↱ 132(107)	← 1410(1297)
1439(1582) →		

7 — Webster Av. & Driveway 5 (7,900 / 600 / 7,900)

↳ 11(8)	↓ 136(229)		
26(21) ↳		↰ 27(22)	↑ 276(178)
11(8) ↴			

8 — Webster Av. & Driveway 6 (7,850 / 200 / 8,000)

↳ 17(14)	↓ 129(222)	
20(16) ↴		↑ 303(201)

9 — Webster Av. & Ramona Exwy. (8,600 / 48,850 / 53,950 / 4,800)

↳ 91(124)	↓ 20(58)	↳ 39(57)	↱ 34(27)	← 1360(1184)	↰ 21(15)
205(141) ↳			↰ 91(97)	↑ 64(32)	↱ 14(17)
1157(1396) →					
77(45) ↴					

10 — Indian Av. & Ramona Exwy. (10,800 / 47,250 / 48,050 / 9,450)

↳ 45(93)	↓ 65(165)	↳ 18(71)	↱ 58(69)	← 1318(1053)	↰ 32(46)
122(105) ↳			↰ 41(80)	↑ 88(103)	↱ 27(96)
1038(1283) →					
50(39) ↴					

11 — Perris Bl. & Ramona Exwy. (34,850 / 42,100 / 47,050 / 28,150)

↳ 234(230)	↓ 310(607)	↳ 121(272)	↱ 109(97)	← 1002(760)	↰ 85(129)		
341(319) ↳			↰ 171(166)	↑ 523(433)	↱ 64(105)		
648(990) →							
95(140) ↴							

12 — Redlands Av. & Ramona Exwy. (10,900 / 54,100 / 46,350 / 7,950)

↳ 10(24)	↓ 37(104)	↳ 76(285)	↱ 461(129)	← 1234(1026)	↰ 85(94)		
21(15) ↳			↰ 40(35)	↑ 137(59)	↱ 114(82)		
752(1424) →							
44(70) ↴							

13 — Evans Rd. & Ramona Exwy. (37,950 / 36,000 / 48,800 / 25,550)

↳ 400(446)	↓ 251(562)	↳ 185(262)	↱ 298(192)	← 982(596)	↰ 17(18)		
334(395) ↳			↰ 399(208)	↑ 467(286)	↱ 27(12)		
427(950) →							
182(355) ↴							

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2023) Delay[1] (secs.) AM	PM	Level of Service AM	PM	E+P Delay[1] (secs.) AM	PM	Level of Service AM	PM
1	I-215 SB Ramps & Ramona Exwy.	TS	25.7	30.6	C	C	30.2	35.7	C	D
2	I-215 NB Ramps & Ramona Exwy.	TS	19.3	16.4	B	B	20.9	17.0	C	B
3	Driveway 1/Nevada Rd. & Ramona Exwy.	CSS/**TS**	16.3	17.5	C	C	25.3	20.4	C	C
4	Driveway 2 & Ramona Exwy.	**CSS**	Future Intersection				22.2	19.3	C	C
5	Driveway 3 & Ramona Exwy.	**TS**	Future Intersection				10.4	9.4	B	A
6	Driveway 4 & Ramona Exwy.	**CSS**	Future Intersection				31.9	23.8	D	C
7	Webster Av. & Driveway 5	**CSS**	Future Intersection				10.9	10.9	B	B
8	Webster Av. & Driveway 6	**CSS**	Future Intersection				9.1	9.7	A	A
9	Webster Av. & Ramona Exwy.	TS	20.1	18.9	C	B	22.4	20.0	C	C
10	Indian Av. & Ramona Exwy.	TS	17.0	19.5	B	B	17.3	19.7	B	B
11	Perris Bl. & Ramona Exwy.	TS	43.3	43.7	D	D	44.0	43.5	D	D
12	Redlands Av. & Ramona Exwy.	TS	16.3	25.6	B	C	16.5	26.1	B	C
13	Evans Rd. & Ramona Exwy.	TS	36.1	25.6	D	C	38.4	26.4	D	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop; **TS** = Improvement

5.5 QUEUING ANALYSIS

5.5.1 OFF-RAMPS

Off-ramp queuing analysis findings for E+P are presented on Table 5-2. As shown on Table 5-2, there are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic. Worksheets for E+P traffic conditions queuing analysis are provided in Appendices 5.4.

TABLE 5-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR E+P CONDITIONS

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2023) 95th Percentile Queue (Feet) AM Peak	PM Peak	Acceptable? [1] AM	PM	E+P 95th Percentile Queue (Feet) AM Peak	PM Peak	Acceptable? [1] AM	PM
I-215 SB Ramps & Ramona Exwy.	SBL	510	242	336 [2]	Yes	Yes	320 [2]	414 [2]	Yes	Yes
	SBL/T	1,110	245	336 [2]	Yes	Yes	325 [2]	414 [2]	Yes	Yes
	SBR	510	47	43	Yes	Yes	46	42	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	NBL	1,120	128	181	Yes	Yes	123	178	Yes	Yes
	NBL/T	510	131	186	Yes	Yes	126	183	Yes	Yes
	NBR	510	479 [2]	323	Yes	Yes	621 [2,3]	393	Yes	Yes

1 Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

2 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

5.5.1 ROADWAYS

Turn pocket queuing analysis findings for E+P are presented on Table 5-3. As shown on Table 5-3, the following additional movements are anticipated to experience turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic, in addition to the movements previously identified under Existing Conditions:

- Nevada Road & Ramona Expressway (#3) eastbound left-turn – AM and PM peak hours
- Evans Road & Ramona Expressway (#13) northbound left -turn – AM peak hour only

Worksheets for E+P traffic conditions turn pocket queuing analysis are also provided in Appendices 5.4.

TABLE 5-3: PEAK HOUR TURN POCKET QUEUING SUMMARY FOR E+P CONDITIONS

			Existing (2023)				E+P			
		Available Stacking Distance	95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement[4]	(Feet)[4]	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Ramps & Ramona Exwy.	WBL	115	125	**348 [2]**	Yes	**No**	**140**	**438 [2]**	**No**	**No**
I-215 NB Ramps & Ramona Exwy.	EBL	115	106 [3]	98 [3]	Yes	Yes	90 [3]	90 [3]	Yes	Yes
	WBR	155	**195**	133	**No**	Yes	**313**	**190**	**No**	**No**
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	125	0	0	Yes	Yes	**424 [2]**	**365 [2]**	**No**	**No**
	WBL	130	3	5	Yes	Yes	33	46	Yes	Yes
Driveway 3 & Ramona Exwy.	*EBL*	*150*	Future Intersection				169	141	Yes	Yes
Webster Av. & Ramona Exwy.	NBL	200	169 [2]	181 [2]	Yes	Yes	195 [2]	201 [2]	Yes	Yes
	SBL	130	63 [2]	114 [2]	Yes	Yes	0	127 [2]	Yes	Yes
	EBL	200	**354 [2]**	**253 [2]**	**No**	**No**	**374 [2]**	**272**	**No**	**No**
	WBL	200	44	36	Yes	Yes	44	36	Yes	Yes
Indian Av. & Ramona Exwy.	NBL	195	146	106	Yes	Yes	71	113	Yes	Yes
	SBL	185	40	106	Yes	Yes	41	106	Yes	Yes
	SBR	175	0	0	Yes	Yes	0	0	Yes	Yes
	EBL	190	146	134	Yes	Yes	159	142	Yes	Yes
	WBL	280	59	77	Yes	Yes	59	77	Yes	Yes
	WBR	260	0	0	Yes	Yes	0	0	Yes	Yes
Perris Bl. & Ramona Exwy.	NBL	350	94	93	Yes	Yes	106	106	Yes	Yes
	NBR	150	0	9	Yes	Yes	0	9	Yes	Yes
	SBL	200	80	158	Yes	Yes	80	157	Yes	Yes
	SBR	145	55	64	Yes	Yes	57	66	Yes	Yes
	EBL	330	173	172	Yes	Yes	185	179	Yes	Yes
	EBR	215	0	20	Yes	Yes	0	31	Yes	Yes
	WBL	300	53	87	Yes	Yes	54	87	Yes	Yes
Redlands Av. & Ramona Exwy.	NBL	200	58	55	Yes	Yes	68	63	Yes	Yes
	SBL	280	104	**416 [2]**	Yes	**No**	106	**421 [2]**	Yes	**No**
	EBL	315	37	32	Yes	Yes	43	36	Yes	Yes
	EBR	315	0	0	Yes	Yes	0	0	Yes	Yes
	WBL	300	118	184 [2]	Yes	Yes	115	187 [2]	Yes	Yes
	WBR	260	77	33	Yes	Yes	74	34	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	200	196 [2]	117	Yes	Yes	**234 [2]**	122	**No**	Yes
	SBL	215	114	147	Yes	Yes	114	147	Yes	Yes
	SBR	215	**266**	166	**No**	Yes	**284**	178	**No**	Yes
	EBL	325	196 [2]	202	Yes	Yes	202 [2]	206	Yes	Yes
	EBR	330	44	58	Yes	Yes	45	59	Yes	Yes
	WBL	310	39	39	Yes	Yes	39	39	Yes	Yes
	WBR	200	121	56	Yes	Yes	122	56	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
[3] Volume for 95th percentile queue is metered by upstream signal
[4] *Italics* = Recommended Stacking Distance for Project Driveway

5.6 DEFICIENCIES AND IMPROVEMENTS

5.6.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours. As such, no improvements have been identified.

5.6.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON TURN POCKET QUEUES

Improvement strategies have been recommended at turn pockets that been identified to experience queuing issues under E+P traffic conditions. The effectiveness of the recommended improvement strategies to address queuing deficiencies are presented in Table 5-4. It should be noted, improvements have only been identified if they are feasible, based on the existing geometry of the turn pockets.

TABLE 5-4: PEAK HOUR QUEUING SUMMARY FOR E+P CONDITIONS WITH IMPROVEMENTS

			Existing (2023)				E+P			
		Available Stacking	95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement	Distance (Feet)[4]	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
Webster Av. & Ramona Exwy.	EBL	**450**	354 [2]	253 [2]	Yes	Yes	374 [2]	272	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	**300**	196 [2]	117	Yes	Yes	234 [2]	122	Yes	Yes
	SBR	**425**	266	166	Yes	Yes	284	178	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] **100** = Improvement

6 EAC AND EAPC (2026) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAC and EAPC (2026) traffic conditions and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and turn-pocket queueing analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAC and EAPC (2026) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC (2026) conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).

6.2 EAC AND EAPC (2026) TRAFFIC VOLUME FORECASTS

6.2.1 EAC (2026) TRAFFIC CONDITIONS

This scenario includes Existing traffic volumes plus an ambient growth factor of 9.27% and the addition of traffic generated by cumulative development projects. The weekday ADT and weekday peak hour intersection turning movement volumes, in actual vehicles, which can be expected for EAC (2026) traffic conditions are shown on Exhibit 6-1.

6.2.2 EAPC (2026) TRAFFIC CONDITIONS

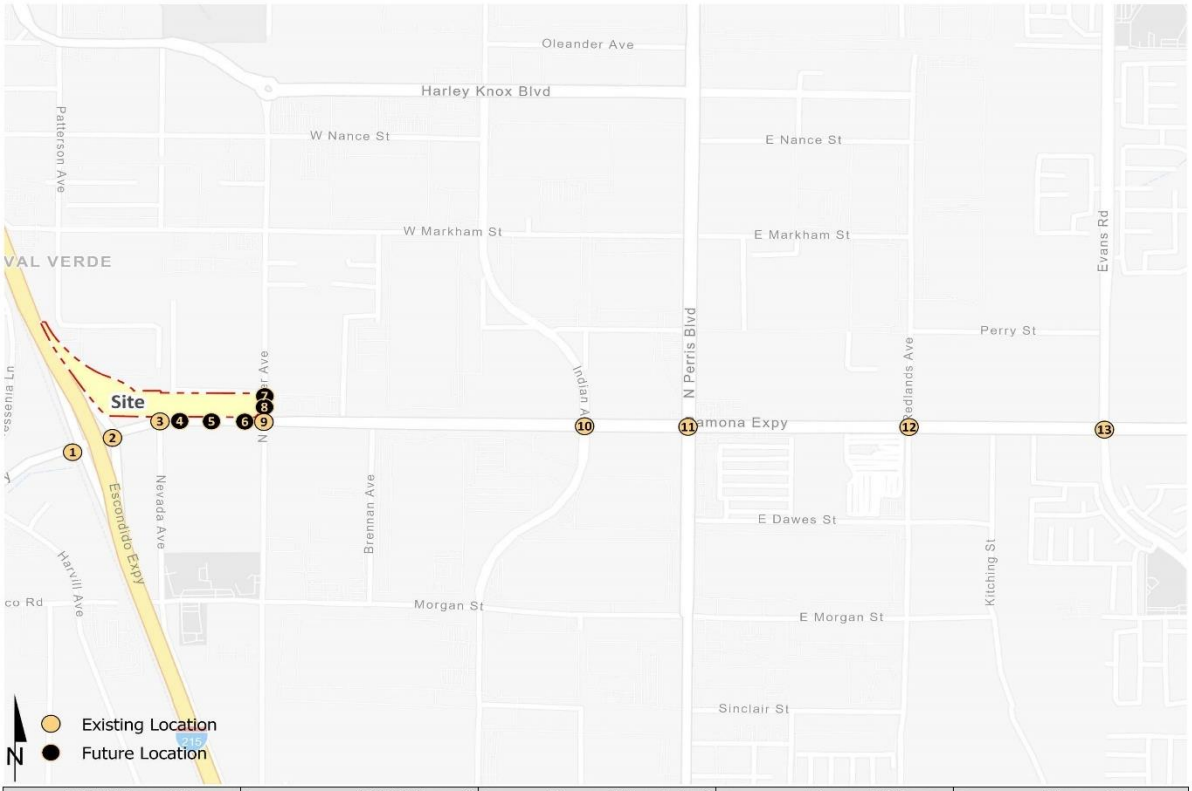
This scenario includes Existing traffic volumes plus an ambient growth factor of 9.27%, the addition of traffic generated by cumulative development projects, and the addition of Project traffic. The weekday ADT and weekday peak hour intersection turning movement volumes, in actual vehicles, which can be expected for EAPC (2026) traffic conditions are shown on Exhibit 6-2.

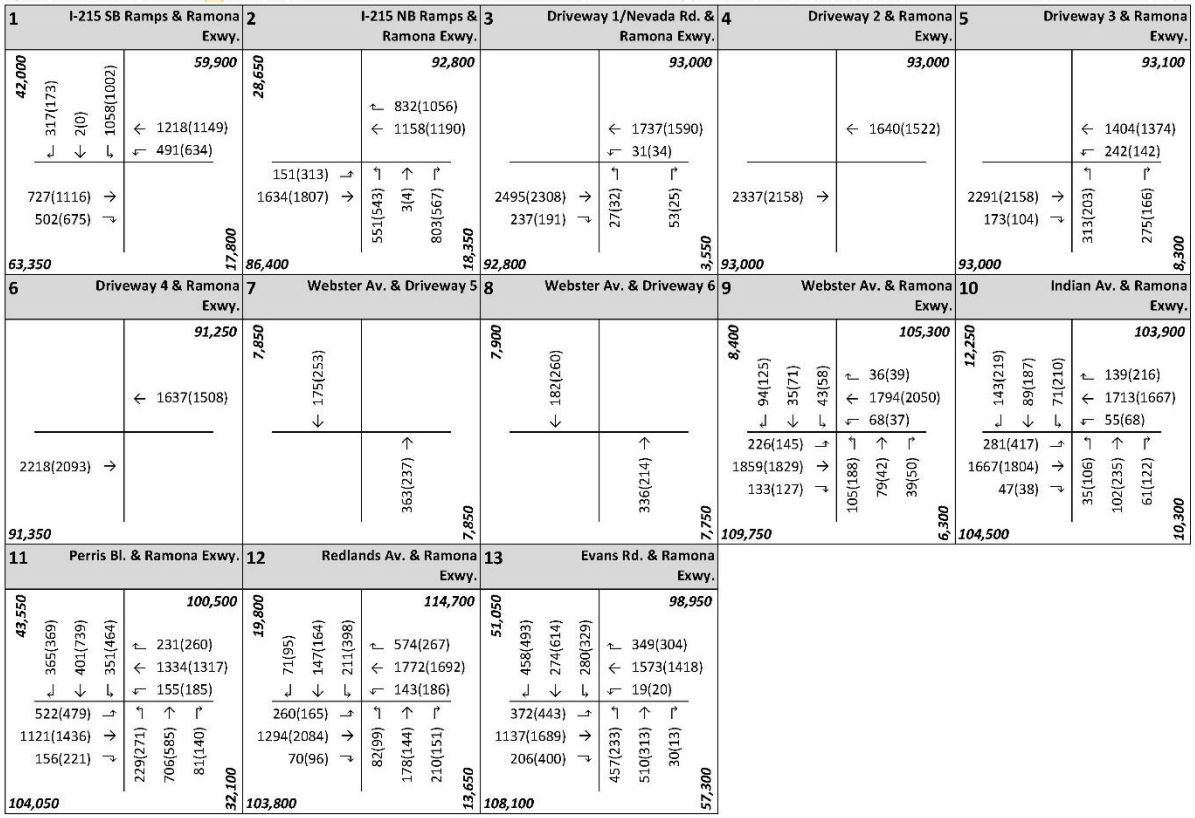
6.3 INTERSECTION OPERATIONS ANALYSIS

EAC and EAPC (2026) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-1 for EAC (2026) traffic conditions, which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours:

- I-215 Southbound Ramps & Ramona Expressway (#1) – LOS F AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) – LOS E AM and PM peak hours
- Nevada Road & Ramona Expressway (#3) – LOS F AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) – LOS E PM peak hour only
- Perris Boulevard & Ramona Expressway (#11) – LOS E AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) – LOS F AM and PM peak hours
- Evans Road & Ramona Expressway (#13) – LOS F AM peak hour; LOS E PM peak hour

EXHIBIT 6-1: EAC (2026) TRAFFIC VOLUMES

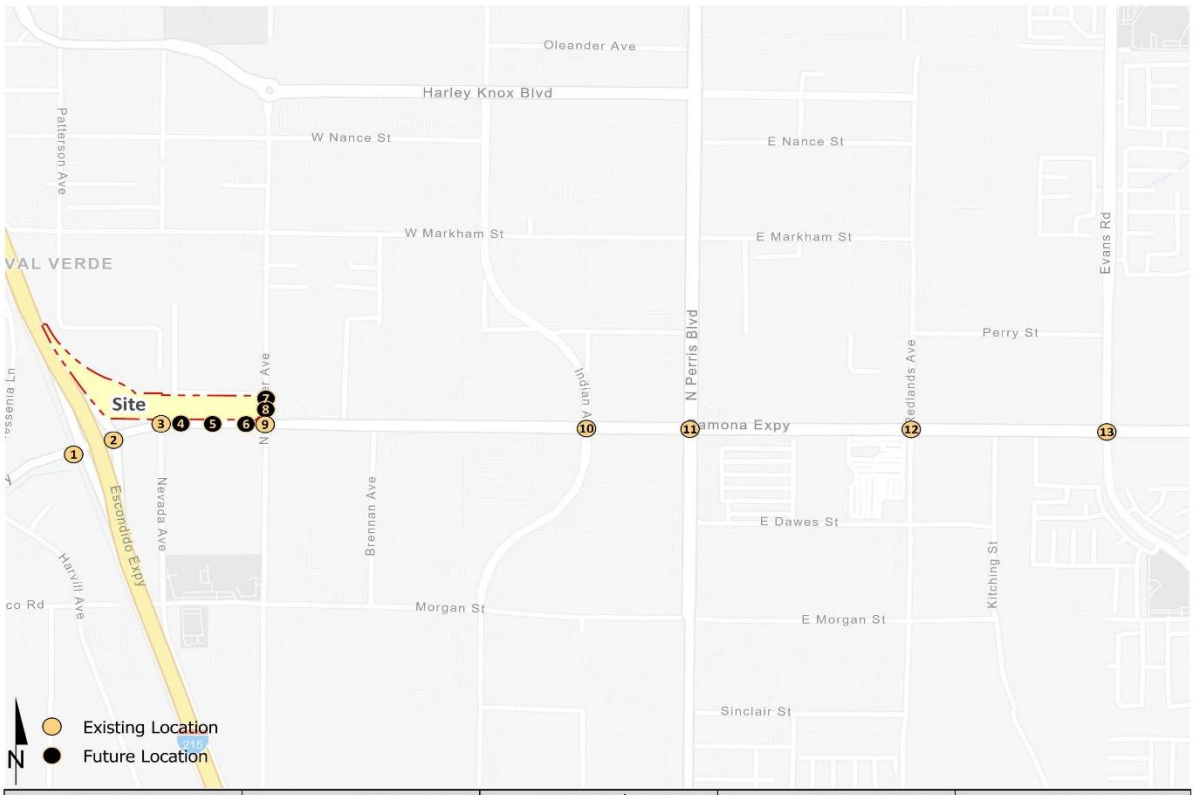




##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

EXHIBIT 6-2: EAPC (2026) TRAFFIC VOLUMES



1 I-215 SB Ramps & Ramona Exwy.	2 I-215 NB Ramps & Ramona Exwy.	3 Driveway 1/Nevada Rd. & Ramona Exwy.	4 Driveway 2 & Ramona Exwy.	5 Driveway 3 & Ramona Exwy.
44,200 / 64,250	30,800 / 100,700	11,250 / 98,000	1,700 / 98,000	4,550 / 98,150
317(173) ↲ 2(0) ↓ 1174(1098) ↳	↱ 940(1137) ← 1248(1258)	250(197) ↲ 18(14) ↓ 212(176) ↳	↱ 56(50) ← 1716(1577)	51(43) ↲ 122(94) ↳
← 1236(1163) ↰ 563(688)		← 181(148) ← 1685(1542) ↰ 31(34)		↱ 52(45) ← 1484(1436) ↰ 242(142)
746(1132) → 502(675) ↴	151(313) ↱ 1770(1919) →	294(247) ↱ 2415(2237) → 237(191) ↴	2468(2262) →	128(104) ↱ 2295(2159) → 173(104) ↴
	↰ 551(543) ↑ 3(4) ↱ 881(631)	↰ 27(32) ↑ 19(16) ↱ 53(25)		↰ 313(203) ↱ 275(166)
64,050 / 19,200	90,700 / 19,800	100,700 / 4,250	98,000	98,000 / 8,300

6 Driveway 4 & Ramona Exwy.	7 Webster Av. & Driveway 5	8 Webster Av. & Driveway 6	9 Webster Av. & Ramona Exwy.	10 Indian Av. & Ramona Exwy.
2,150 / 96,350	8,550	8,550	9,200 / 109,750	12,700 / 107,500
125(99) ↲	11(8) ↲ 184(261) ↓	17(14) ↲ 184(261) ↓	106(135) ↲ 39(74) ↓ 50(63) ↳	155(229) ↲ 89(187) ↓ 71(210) ↳
↱ 132(107) ← 1645(1516)			↱ 40(42) ← 1910(2146) ↰ 68(37)	↱ 139(216) ← 1810(1747) ↰ 55(68)
2344(2188) →	26(21) ↱ 11(8) ↴	20(16) ↴	237(153) ↱ 1963(1908) → 144(135) ↴	292(425) ↱ 1757(1872) → 58(46) ↴
	↰ 27(22) ↑ 355(229)	↑ 355(229)	↰ 117(198) ↑ 83(45) ↱ 39(50)	↰ 47(116) ↑ 102(235) ↱ 61(122)
96,350	600 / 8,550	200 / 8,550	114,850 / 6,850	108,950 / 10,750

11 Perris Bl. & Ramona Exwy.	12 Redlands Av. & Ramona Exwy.	13 Evans Rd. & Ramona Exwy.
44,400 / 102,350	19,950 / 116,150	51,500 / 99,550
388(388) ↲ 401(739) ↓ 351(464) ↳	75(98) ↲ 147(164) ↓ 211(398) ↳	470(503) ↲ 274(614) ↓ 280(329) ↳
↱ 231(260) ← 1384(1358) ↰ 155(185)	↱ 574(267) ← 1811(1724) ↰ 143(186)	↱ 349(304) ← 1589(1431) ↰ 19(20)
544(495) ↱ 1168(1471) → 178(237) ↴	264(168) ↱ 1330(2111) → 77(101) ↴	383(451) ↱ 1151(1700) → 217(408) ↴
↰ 252(290) ↑ 706(585) ↱ 81(140)	↰ 90(105) ↑ 178(144) ↱ 210(151)	↰ 469(243) ↑ 510(313) ↱ 30(13)
107,650 / 32,950	105,700 / 13,900	109,550 / 57,700

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS

#	Intersection	Traffic Control[2]	EAC (2026) Delay[1] (secs.) AM	EAC (2026) Delay[1] (secs.) PM	EAC (2026) Level of Service AM	EAC (2026) Level of Service PM	EAPC (2026) Delay[1] (secs.) AM	EAPC (2026) Delay[1] (secs.) PM	EAPC (2026) Level of Service AM	EAPC (2026) Level of Service PM
1	I-215 SB Ramps & Ramona Exwy.	TS	**96.4**	**136.2**	**F**	**F**	**113.6**	**160.1**	**F**	**F**
2	I-215 NB Ramps & Ramona Exwy.	TS	**62.5**	**71.4**	**E**	**E**	**111.5**	**96.6**	**F**	**F**
3	Driveway 1/Nevada Rd. & Ramona Exwy.	CSS/**TS**	**>100.0**	**>100.0**	**F**	**F**	54.2	48.5	D	D
4	Driveway 2 & Ramona Exwy.	**CSS**	Future Intersection				27.1	23.0	D	C
5	Driveway 3 & Ramona Exwy.	**TS**	38.8	13.2	D	B	49.0	24.9	D	C
6	Driveway 4 & Ramona Exwy.	**CSS**	Future Intersection				33.9	30.2	D	D
7	Webster Av. & Driveway 5	**CSS**	Future Intersection				11.6	11.4	B	B
8	Webster Av. & Driveway 6	**CSS**	Future Intersection				9.4	9.9	A	A
9	Webster Av. & Ramona Exwy.	TS	30.0	37.5	C	D	33.6	42.8	C	D
10	Indian Av. & Ramona Exwy.	TS	27.5	**67.0**	C	**E**	30.3	**70.2**	C	**E**
11	Perris Bl. & Ramona Exwy.	TS	**71.8**	**71.4**	**E**	**E**	**80.4**	**84.9**	**F**	**F**
12	Redlands Av. & Ramona Exwy.	TS	**80.3**	**120.1**	**F**	**F**	**86.2**	**120.7**	**F**	**F**
13	Evans Rd. & Ramona Exwy.	TS	**101.2**	**79.0**	**F**	**E**	**104.3**	**83.5**	**F**	**F**

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

2 TS = Traffic Signal; CSS = Cross-street Stop

With the addition of Project traffic, there are no additional study area intersections anticipated to operate at an unacceptable LOS during the peak hours under EAPC (2026) traffic conditions. The intersection operations analysis worksheets for EAC and EAPC (2026) traffic conditions are included in Appendices 6.1 and 6.2, respectively. It should be noted, the Project design feature to construct a traffic signal at Nevada Avenue/Driveway 1 & Ramona Expressway (#3) is anticipated to improve the intersection to an acceptable LOS under EAPC (2026) traffic conditions.

6.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been met for all existing unsignalized intersections. As such, traffic signal warrants have not been performed for EAC (2026) traffic conditions. Traffic signal warrants have been performed for EAPC (2026) traffic conditions for proposed intersections based on planning level (ADT) volumes. There are no unsignalized study area intersections anticipated to meet a traffic signal warrant under EAPC (2026) traffic conditions, in addition to the intersections identified previously under Existing and E+P traffic conditions. EAPC (2026) traffic signal warrant analysis worksheets are provided in Appendix 6.3.

6.5 QUEUING ANALYSIS

6.5.1 OFF-RAMPS

Off-ramp queuing analysis findings for EAC and EAPC (2026) are presented in Table 6-2. As shown in Table 6-2, there are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAC and EAPC (2026) traffic conditions. Worksheets for EAC and EAPC (2026) traffic conditions queuing analysis for are provided in Appendices 6.4 and 6.5, respectively.

TABLE 6-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR EAPC (2026) CONDITIONS

			EAC (2026)				EAPC (2026)			
		Available Stacking Distance	95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement	(Feet)	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Ramps & Ramona Exwy.	SBL	510	808 [2,3]	727 [2,3]	Yes	Yes	887 [2,3]	803 [2,3]	Yes	Yes
	SBL/T	1,110	810 [2]	727 [2]	Yes	Yes	889 [2]	803 [2]	Yes	Yes
	SBR	510	316 [2]	103	Yes	Yes	308 [2]	106	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	NBL	1,120	215	234	Yes	Yes	208	230	Yes	Yes
	NBL/T	510	217	238	Yes	Yes	209	234	Yes	Yes
	NBR	510	897 [2,3]	572 [2,3]	Yes	Yes	1,004 [2,3]	667 [2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

6.5.1 ROADWAYS

Turn pocket queuing analysis findings for EAC and EAPC (2026) are presented in Table 6-2. As shown in Table 6-3, the following movements are anticipated to experience turn pocket queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under EAC (2026) traffic conditions:

- I-215 Southbound Ramps & Ramona Expressway (#1) westbound left-turn – AM and PM peak hours
- I-215 Northbound Ramps & Ramona Expressway (#2) eastbound left-turn – PM peak hour only
- I-215 Northbound Ramps & Ramona Expressway (#2) westbound right-turn – AM and PM peak hours
- Webster Avenue & Ramona Expressway (#9) eastbound left turn lane – AM and PM peak hours
- Indian Avenue & Ramona Expressway (#10) southbound left-turn – PM peak hour only
- Indian Avenue & Ramona Expressway (#10) eastbound left-turn – AM and PM peak hours
- Perris Boulevard & Ramona Expressway (#11) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) southbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) eastbound left-turn – AM and PM peak hours
- Redlands Avenue & Ramona Expressway (#12) westbound left-turn – PM peak hour only
- Evans Road & Ramona Expressway (#13) northbound left-turn – AM peak hour only

- Evans Road & Ramona Expressway (#13) southbound right-turn – AM and PM peak hours

TABLE 6-3: PEAK HOUR TURN POCKET QUEUING SUMMARY FOR EAPC (2026) CONDITIONS

			EAC (2026)				EAPC (2026)			
		Available Stacking	95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
Intersection	Movement[4]	Distance (Feet)[4]	AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Ramps & Ramona Exwy.	WBL	115	**157 [3]**	**576 [2,3]**	**No**	**No**	**137 [3]**	**594 [2,3]**	**No**	**No**
I-215 NB Ramps & Ramona Exwy.	EBL	115	115 [3]	**189 [2,3]**	Yes	**No**	105 [3]	**192 [2,3]**	Yes	**No**
	WBR	155	**520 [3]**	**855 [2,3]**	**No**	**No**	**796 [2]**	**972 [2]**	**No**	**No**
Driveway 1/Nevada Rd. & Ramona Exwy.	EBL	125	0	0	Yes	Yes	**455 [2]**	**437 [2]**	**No**	**No**
	WBL	130	20	20	Yes	Yes	58	70 [2]	Yes	Yes
Driveway 3 & Ramona Exwy.	EBL	225	Future Movement				171	142	Yes	Yes
Webster Av. & Ramona Exwy.	NBL	200	223 [2,5]	390 [2,5]	Yes	Yes	247 [2,4]	411 [2,4]	Yes	Yes
	SBL	130	90 [2]	130 [2]	Yes	Yes	106 [2]	141 [2]	Yes	Yes
	EBL	200	**416 [2]**	**278 [2]**	**No**	**No**	**436 [2]**	**296 [2]**	**No**	**No**
	WBL	200	139 [2]	73 [2]	Yes	Yes	139 [2]	76 [2]	Yes	Yes
Indian Av. & Ramona Exwy.	NBL	195	63	174 [2]	Yes	Yes	78	170 [2]	Yes	Yes
	SBL	185	153 [2]	**376 [2]**	Yes	**No**	158 [2]	**382 [2]**	Yes	**No**
	SBR	175	35	55	Yes	Yes	44	58	Yes	Yes
	EBL	190	**460 [2]**	**747 [2]**	**No**	**No**	**490 [2]**	**750 [2]**	**No**	**No**
	WBL	280	103 [2]	111 [2]	Yes	Yes	102 [2]	124 [2]	Yes	Yes
	WBR	260	28	94	Yes	Yes	28	93	Yes	Yes
Perris Bl. & Ramona Exwy.	NBL	350	159 [2]	207 [2]	Yes	Yes	200 [2]	215 [2]	Yes	Yes
	NBR	150	0	36	Yes	Yes	0	37	Yes	Yes
	SBL	200	**290 [2]**	**347 [2]**	**No**	**No**	**259 [2]**	**323 [2]**	**No**	**No**
	SBR	145	72	145	Yes	Yes	103	152	Yes	Yes
	EBL	330	340 [2]	346 [2]	Yes	Yes	349 [2]	330 [2]	Yes	Yes
	EBR	215	36	82	Yes	Yes	50	90	Yes	Yes
	WBL	300	114 [2]	118 [2]	Yes	Yes	95 [2]	128 [2]	Yes	Yes
Redlands Av. & Ramona Exwy.	NBL	200	161 [2]	208 [2]	Yes	Yes	169 [2]	213 [2]	Yes	Yes
	SBL	280	**334 [2]**	**628 [2]**	**No**	**No**	**352 [2]**	**631 [2]**	**No**	**No**
	EBL	315	**509 [2]**	**361 [2]**	**No**	**No**	**532 [2]**	**362 [2]**	**No**	**No**
	EBR	315	0	9	Yes	Yes	0	13	Yes	Yes
	WBL	300	237 [2]	**377 [2]**	Yes	**No**	208 [2]	**377 [2]**	Yes	**No**
	WBR	260	246	114	Yes	Yes	235	118	Yes	Yes
Evans Rd. & Ramona Exwy.	NBL	200	**296 [2]**	136	**No**	Yes	**300 [2]**	141	**No**	Yes
	SBL	215	192 [2]	191 [2]	Yes	Yes	192 [2]	191 [2]	Yes	Yes
	SBR	215	**395 [2]**	**266**	**No**	**No**	**426 [2]**	**279**	**No**	**No**
	EBL	325	244 [2]	232	Yes	Yes	250 [2]	236	Yes	Yes
	EBR	330	47	87	Yes	Yes	48	90	Yes	Yes
	WBL	310	42	42	Yes	Yes	42	42	Yes	Yes
	WBR	200	205	201	Yes	Yes	205	201	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Volume for 95th percentile queue is metered by upstream signal

[4] A two-way left-turn lane is present and contains sufficient storage to accommodate the 95th Percentile Queue.

With the addition of Project traffic, the following movements are anticipated to experience queuing issues under EAPC (2026) traffic conditions:

- Webster Avenue & Ramona Expressway (#9) eastbound left-turn – AM and PM peak hours

Worksheets for EAC and EAPC (2026) traffic conditions queuing analysis for are also provided in Appendices 6.4 and 6.5, respectively.

6.6 DEFICIENCIES AND IMPROVEMENTS

Improvements needed to achieve acceptable LOS have been identified at intersections or off-ramps that are anticipated to operate at a deficient LOS under EAC and EAPC (2026) traffic conditions.

6.6.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Based on the City of Perris deficiency criteria discussed in Section 2.6 *Deficiency Criteria*, roadway intersections were found to be deficient. Improvements necessary to improve project-related traffic deficiencies are shown in Table 6-4. Table 6-4 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under EAPC (2026) traffic conditions. The improvements have been identified to improve the EAPC (2026) deficiencies back to acceptable levels. Intersection analysis worksheets for EAPC (2026) traffic conditions, with improvements, are provided in Appendix 6.6.

6.6.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON TURN POCKET QUEUES

Improvement strategies have been recommended at turn pockets that been identified to experience queuing issues under EAPC (2026) traffic conditions in an effort to achieve pre-Project delay or better. The effectiveness of the recommended improvement strategies to address EAPC (2026) off-ramp deficiencies are presented on Table 6-4. Worksheets for EAPC (2026) conditions, with improvements, turn pocket queueing analysis worksheets are provided in Appendix 6.7.

TABLE 6-4: INTERSECTION ANALYSIS FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Delay[2] (secs.) AM	Delay[2] (secs.) PM	Level of Service AM	Level of Service PM
1 I-215 SB Ramps & Ramona Exwy.																	
- Without Improvements	TS	0	0	0	1	1	1	0	2	0	1	2	0	**113.6**	**160.1**	**F**	**F**
- With Improvements	TS	0	0	0	1	1	1	0	**3**	**1**	**2**	**3**	0	33.9	44.0	C	D
2 I-215 NB Ramps & Ramona Exwy.																	
- Without Improvements	TS	1	1	1	0	0	0	1	2	0	0	2	1	**111.5**	**96.6**	**F**	**F**
- With Improvements	TS	1	1	1	0	0	0	**2**	**3**	0	0	**3**	**1>>**	30.9	20.3	C	C
10 Indian Av. & Ramona Exwy.																	
- Without Improvements	TS	1	2	0	1	2	1	1	3	0	1	3	1	30.3	**70.2**	C	**E**
- With Improvements	TS	1	2	0	1	2	1	1	**4**	0	1	**4**	**0**	25.3	52.8	C	D
11 Perris Bl. & Ramona Exwy.																	
- Without Improvements	TS	2	2	1	2	2	1	2	3	1	2	3	0	**80.4**	**84.9**	**F**	**F**
- With Improvements	TS	2	**3**	**0**	2	**3**	**0**	2	3	1	2	3	0	52.7	53.4	D	D
12 Redlands Av. & Ramona Exwy.																	
- Without Improvements	TS	1	1	0	1	1	1	1	3	1	1	3	1	**86.2**	**120.7**	**F**	**F**
- With Improvements	TS	1	1	0	**2**	1	1	1	**4**	1	1	**4**	1	39.1	41.1	D	D
13 Evans Rd. & Ramona Exwy.																	
- Without Improvements	TS	2	2	0	2	2	1	2	3	1>>	1	2	1	**104.3**	**83.5**	**F**	**F**
- With Improvements	TS	2	2	0	2	2	1	2	3	1>>	1	**3**	1	46.3	40.1	D	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; >> = Free-Right Turn

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

TABLE 6-5: QUEUING SUMMARY FOR EAPC (2026) CONDITIONS WITH IMPROVEMENTS

Intersection	Movement	Available Stacking Distance (Feet)[4]	With Improvements 95th Percentile Queue (Feet) AM Peak	PM Peak	Acceptable? [1] AM	PM
I-215 SB Ramps & Ramona Exwy.	WBL	**315**	179	318 [2]	Yes	Yes
I-215 NB Ramps & Ramona Exwy.	EBL	**315**	94	147 [3]	Yes	Yes
Webster Av. & Ramona Exwy.	EBL	**450**	**436 [2]**	**296 [2]**	**Yes**	**Yes**
Evans Rd. & Ramona Exwy.	NBL	**300**	285 [2]	156 [2]	Yes	Yes
	SBR	**425**	424 [2]	330	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 25 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.
[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
[3] Volume for 95th percentile queue is metered by upstream signal
[4] **100** = Improvement

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7 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Perris are funded through a combination of project mitigation, development impact fee programs or fair share contributions, such as the City of Perris Development Impact Fee (DIF) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

7.1 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The WRCOG is responsible for establishing and updating TUMF rates. The County may grant developers a credit against the specific components of fees for the dedication of land or the construction of facilities identified in the list of improvements funded by each of these fee programs. Fees are based upon projected land uses and a related transportation need to address growth based upon a 2016 Nexus study.

TUMF is an ambitious regional program created to address cumulative impacts of growth throughout western Riverside County. Program guidelines are being handled on an iterative basis. Exemptions, credits, reimbursements, and local administration are being deferred to primary agencies. The County of Riverside serves this function for the proposed Project. Fees submitted to the County are passed on to the WRCOG as the ultimate program administrator.

TUMF guidelines empower a local zone committee to prioritize and arbitrate certain projects. The Project is located in the Central Zone. The zone has developed a 5-year capital improvement program to prioritize public construction of certain roads. TUMF is focused on improvements necessitated by regional growth.

7.2 CITY OF PERRIS DEVELOPMENT IMPACT FEE (DIF) PROGRAM

In 1991, the City of Perris created a Development Impact Fee program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. This DIF program has been successfully implemented by the City since 1991 and was updated in 2014. The City updated the DIF program to add new roadway segments and intersections necessary to accommodate future growth and to ensure that the identified street improvements would operate at or above the City's LOS performance threshold. The City's DIF program includes facilities that are not part of, or which may exceed improvements identified and covered by the TUMF program. As a result, the pairing of the regional and local fee programs provides a more comprehensive funding and implementation plan to ensure an adequate and interconnected transportation system. Under the City's DIF program, the City may grant developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

Similar to the TUMF Program, after the City's DIF fees are collected, they are placed in a separate interest-bearing account pursuant to the requirements of Government Code sections 66000 *et seq*. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and

consultants. The City uses this data to determine the timing of the improvements listed in its facilities list. The City also uses this data to ensure that the improvements listed on the facilities list are constructed before the LOS falls below the LOS performance standards adopted by the City. In this way, the improvements are constructed before the LOS falls below the City's LOS performance thresholds. The City's DIF program establishes a timeline to fund, design, and build the improvements.

The City has an established, proven track record with respect to implementing the City's DIF Program. Many of the roadway segments and intersections included within the study area for this Traffic Impact Analysis are at various stages of widening and improvement based on the City's collection of DIF fees. Under this Program, as a result of the City's continual monitoring of the local circulation system, the City ensures that DIF improvements are constructed prior to when the LOS would otherwise fall below the City's established performance criteria.

7.3 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, for the applicable deficient study area intersection are provided in Table 7-1. These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

TABLE 7-1: PROJECT FAIR SHARE CALCULATIONS FOR INTERSECTIONS

#	Intersection		Existing (2023)	Project Only	EAPC (2026)	Total New Traffic	Project % of New Traffic[1]
1	I-215 SB Ramps & Ramona Exwy.						
		AM:	2,676	225	4,541	1,865	**12.1%**
		PM:	3,087	180	4,929	1,842	9.8%
2	I-215 NB Ramps & Ramona Exwy.						
		AM:	3,259	412	5,543	2,284	**18.0%**
		PM:	3,431	325	5,806	2,375	13.7%
10	Indian Av. & Ramona Exwy.						
		AM:	2,669	233	4,635	1,966	**11.9%**
		PM:	3,019	184	5,473	2,454	7.5%
11	Perris Bl. & Ramona Exwy.						
		AM:	3,516	187	5,838	2,322	**8.1%**
		PM:	4,102	146	6,612	2,510	5.8%
12	Redlands Av. & Ramona Exwy.						
		AM:	2,913	98	5,109	2,196	**4.5%**
		PM:	3,271	76	5,616	2,345	3.2%
13	Evans Rd. & Ramona Exwy.						
		AM:	3,893	76	5,741	1,848	**4.1%**
		PM:	4,222	60	6,328	2,106	2.8%

[1] **BOLD =** Highest fair share percentage is highlighted.

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8 REFERENCES

1. **City of Perris.** *Transportation Impact Analysis Guidelines for CEQA.* City of Perris : s.n., May 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **VRPA Technologies, Inc. for Riverside County Transportation Commission.** *Riverside County Long Range Transportation Study.* County of Riverside : VRPA Technologies, Inc., December 2019.
4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
5. **Caltrans.** California Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2017.
6. **City of Perris.** *General Plan Circulation Element.* City of Perris : s.n., August 26, 2008.
7. **Southern California Association of Governments (SCAG).** *2020 Regional Transportation Plan / Sustainable Communities Strategy.* Adopted September 2020.

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MEMORANDUM

URBAN | CROSSROADS

DATE: January 15, 2024
TO: Mike Naggar, Mike Naggar & Associates
FROM: Charlene So, Urban Crossroads, Inc.
Alex So, Urban Crossroads, Inc.
JOB NO: 15495-01 VMT

PERRIS GATEWAY VEHICLE MILES TRAVELED (VMT) SCREENING EVALUATION

Urban Crossroads, Inc. is pleased to provide the following Vehicle Miles Traveled (VMT) Screening Evaluation for the Perris Gateway (**Project**), which is located on the northbound side of the 215 Freeway and Ramona Expressway in the City of Perris.

PROJECT OVERVIEW

The proposed Project consists of 12,000 square feet of sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of storage building use. A preliminary site plan for the proposed Project is found in Attachment A.

BACKGROUND

The California Environmental Quality Act (CEQA) requires all lead agencies to adopt VMT as the measure for identifying transportation impacts for land use projects. To comply with CEQA, the City of Perris adopted their Transportation Impact Analysis Guidelines for CEQA (May 2020) (**City Guidelines**) (1). This VMT screening evaluation has been developed based on the adopted City Guidelines.

VMT SCREENING

Consistent with City Guidelines, a land use project's VMT impact is to perform an initial screening evaluation utilizing the City of Perris VMT Scoping Form for Land Use Projects (**Scoping Form**). The Scoping Form provides an easy-to-use tool for streamlining the VMT analysis process.

The City's Guidelines list standardized screening methods for project level VMT analysis that can be used to identify when a proposed land use development project is anticipated to result in a less than significant impact thereby eliminating the need to conduct additional VMT analysis. The City of Perris VMT screening

methods are listed below, and a land use project need only to meet one of the screening criteria to result in a less than significant impact.:

- Affordable Housing
- High Quality Transit Areas (HQTA) Screening
- Local-Serving Land Use
- Low VMT Area
- Net Daily Trips Less than 500 ADT

AFFORDABLE HOUSING

The City Guidelines state, if a project consists of 100% affordable housing, then the presumption can be made that it will have a less than significant impact on VMT. The Project does not intend to develop any residential uses.

Affordable Housing screening criteria not met.

HIGH QUALITY TRANSIT AREAS (HQTA) SCREENING

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"1 or an existing stop along a "high-quality transit corridor"2) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The City Guidelines provide a map of Transit Priority Areas (TPAs) within the City of Perris. The Project site was located on the map, and it was determined that the Project is not located within a TPA (see Attachment B).

HQTA screening criteria is not met.

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[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

LOCAL-SERVING LAND USE

As identified in the City Guidelines, local serving land uses provide more opportunities for residents and employees to shop, dine, and obtain services closer to home and work. The proposed Project of sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of storage building use. All components of the Project are local serving in nature as they provide greater dining, fueling, and storage opportunities to the local community thereby improving destination proximity and leading to shortened vehicle trips.

Local-Serving Land Use screening criteria is met.

LOW VMT AREA SCREENING

The City Guidelines state, "Projects that locate in areas with low VMT, and that incorporate similar features (i.e., land use type, access to the circulation network, etc.), will tend to exhibit similarly low VMT." It is our understanding that the City of Perris utilizes its own VMT scoping form to identify areas of low VMT. The scoping form uses the sub-regional Riverside County Transportation Analysis Model (RIVTAM) to measure VMT performance in individual traffic analysis zones (TAZs) within the Western Riverside Council of Governments (WRCOG) region. First, the Project's physical location based on the WRCOG web-based screening tool is used to determine the TAZ in which the Project resides. The TAZ identification number is then selected within the scoping form and the VMT generated by the existing TAZ is compared to the City's impact threshold of VMT per employee as all components of the Project are non-residential. The proposed Project is located in two TAZs. The self-storage facility and the two fast-food restaurants sit on the northern and western portion of the site respectively and are located in TAZ 3736. TAZ 3736 is not part of the Perris Scoping form and does not have any existing VMT information, therefore a determination of low VMT area cannot be made for this TAZ. The remainder of the Project is located on the southeastern portion of the Project site in TAZ 3754 and the VMT per employee is 12.19. Since the Project's TAZ VMT exceeds the City of Perris citywide VMT average of 11.62, the Project does not reside within a low VMT generating area.

Low VMT Area screening criteria is not met.

NET DAILY TRIPS LESS THAN 500 ADT

The City Guidelines indicates that projects that generate less than 500 average daily trips (ADT) would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT. The self-storage component is expected to generate 118 two-way daily trips; however, the remaining components are expected to exceed the 500 ADT threshold (see Attachment D).

Net Daily Trips Less Than 500 ADT screening criteria is met for only the self-storage component.

CONCLUSION

As the Project's self-storage component meets the Net trips Less than 500 ADT screening criteria and the entire Project was found to meet the Local Serving Land Use screening criteria. The Project in its entirety is presumed to have a **less than significant VMT impact**.

If you have any questions, please contact me directly at aso@urbanxroads.com.

REFERENCES

1. **City of Perris.** *Transportation Analysis Guidelines for CEQA.* City of Perris : s.n., May 2020.

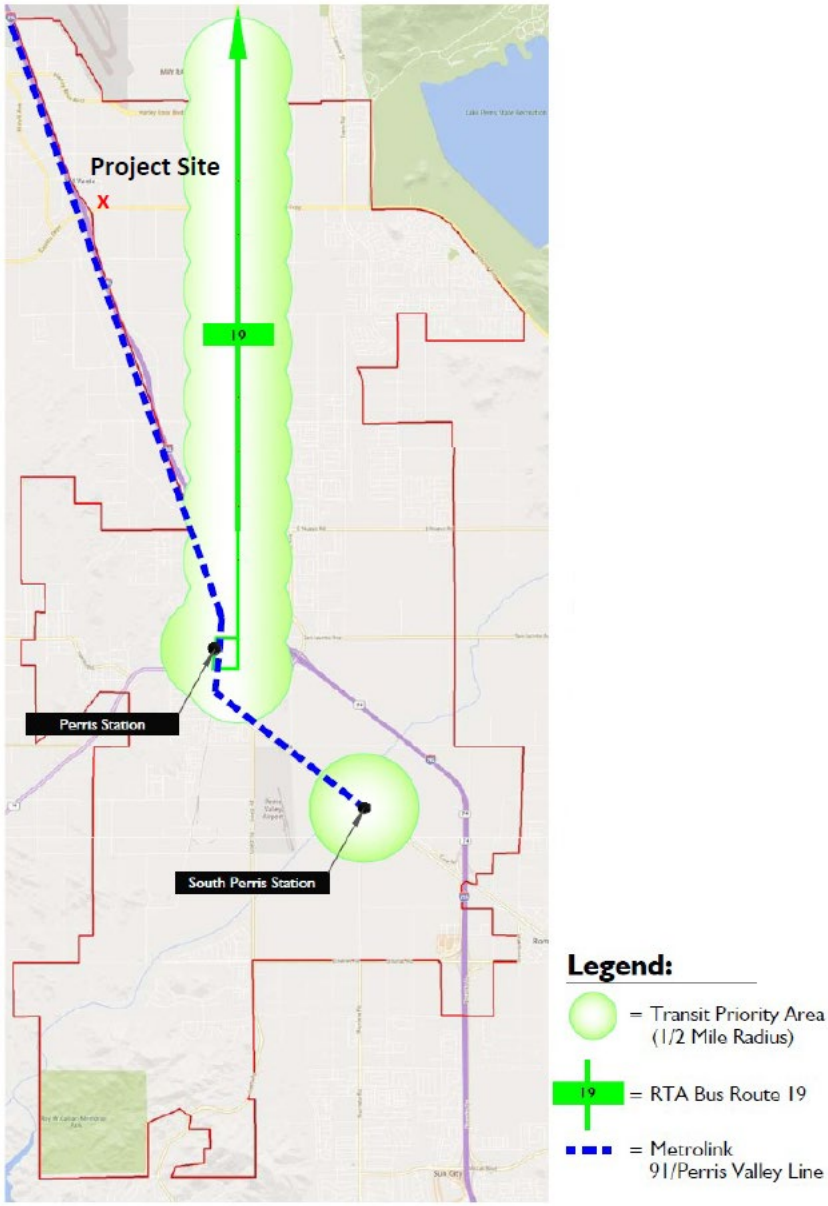
ATTACHMENT A

PRELIMINARY SITE PLAN

Verde
215
BNSF RR
Cajalco Expy
Ramona Expy
Ramona Expy
Ramona Expy
Nevada Rd
Webster Ave
N Webster Ave
1
2
3
4
5
6
Driveway
(Full Access)
(Right-In/Right-Out)
N

ATTACHMENT B

HQTA SCREENING


Project Site
X
19
Perris Station
South Perris Station
Legend:
= Transit Priority Area (1/2 Mile Radius)
19
= RTA Bus Route 19
= Metrolink 91/Perris Valley Line

ATTACHMENT C

CITY OF PERRIS SCOPING FORMS

City of Perris
www.cityofperris.org

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No.

Project Name: Perris Gateway Phase 1

Project Location: Northbound side of the 215 Freeway and Ramona Expressway (APN: 314-180-023 & 314-180-024)

Project Description: 2 gas stations w/32 position fueling, 80,478 sqft of sit-down restaruant, and fast food restaurants with drive thru 18,400 sqft.
(Please attach a copy of the project Site Plan)

Current GP Land Use: PVCCSP-Commercial **Proposed GP Land Use:** PVCCSP-Commercial

Current Zoning: PVCCSP-Commercial **Proposed Zoning:** PVCCSP-Commercial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

	YES		NO	X	Attachments:
A. Is the Project 100% affordable housing?	YES		NO	X	
B. Is the Project within 1/2 mile of qualifying transit?	YES		NO	X	
C. Is the Project a local serving land use?	YES	X	NO		
D. Is the Project in a low VMT area?	YES		NO	X	
E. Are the Project's Net Daily Trips less than 500 ADT?	YES		NO	X	

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3754	13.42	VMT/Capita	Residential:	
	12.19	VMT/Employee	Non-Residential:	X

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017

Project Trip Generation: 5,350 **Average Daily Trips (ADT)**

	YES		NO			
Internal Trip Credit:	YES	X	NO		% Trip Credit:	
Pass-By Trip Credit:	YES	X	NO		% Trip Credit:	
Affordable Housing Credit:	YES		NO	X	% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO	X	Trip Credit:	

Net Project Daily Trips: 5,350 **Average Daily Trips (ADT)** Attachments: **Table 3**

Does project trip generation warrant an LOS evaluation outside of CEQA? YES X NO

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?

A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Less Than Significant

B. Is mitigation required?

If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	N/A	N/A
B. Unmitigated Project TAZ VMT Rate:	N/A	N/A
C. Percentage Reduction Required to Achieve the Citywide Average VMT:	N/A	

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**

Project Location Setting	**Suburban Center**

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	N/A	N/A

F. Is the project pressumed to have a less than significant impact with mitigation?

N/A

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Optimus Building Corp.
Contact:	Charlene Hwang So	**Contact:**	Kelly Olauson
Address:	1133 Camelback St. #8329, Newport Beach, CA	**Address:**	121 Osprey Cove Ln., Ponte Vedra, FL 32082
Phone:	(949) 660-1994	**Phone:**	562-883-2465
Email:	cso@urbanxroads.com	**Email:**	kelly@kellyolauson.com
Date:	3/1/2021	**Date:**	7/6/2023

Approved by:

Perris Planning Division	Date	Perris City Engineer	Date

ATTACHMENT D

TRIP GENERATION DATA

D-1 PROJECT TRIP GENERATION SUMMARY

			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Self-Storage	80.478	TSF	4	3	7	6	6	12	118
High Turnover (Sit-Down) Restaurant	12.000	TSF	63	52	115	66	42	108	1,286
Internal Capture:			0	0	0	-1	-3	-4	-80
Pass-by Trip Reduction (PM = 43%; Daily = 25%):			0	0	0	-17	-17	-34	-302
Fast-Food Restaurant With Drive-Thru	18.400	TSF	419	402	821	316	292	608	8,602
Internal Capture:			0	0	0	-10	-17	-27	-514
Pass-by Trip Reduction (AM = 50%; PM = 55%; Daily = 25%):			-201	-201	-402	-151	-151	-302	-2,022
Gas Station (Market >4,000 SF)	12	VFP	162	162	324	137	137	274	3,086
Internal Capture (10%):			-16	-16	-32	-14	-14	-27	-309
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-111	-111	-222	-92	-92	-184	-694
Gas Station (Market >5,500 SF)	20	VFP	316	316	632	269	269	538	6,916
Internal Capture (10%):			-32	-32	-63	-27	-27	-54	-692
Pass-by Trip Reduction (AM = 76%; PM = 75%; Daily = 25%):			-216	-216	-432	-182	-182	-364	-1,556
Automated Car Wash	1	TUN	0	0	0	39	39	78	776
Internal Capture:			0	0	0	-20	-11	-31	-222
Total Gross Trips (No Reductions)			964	935	1,899	833	785	1,618	20,784
Total Internal Capture Trips			-48	-48	-96	-72	-72	-143	-1,816
Total Pass-By Reduction Trips			-528	-528	-1,056	-442	-442	-884	-4,574
Total Gross Trips minus Internal Capture Reduction			916	887	1,803	761	713	1,474	18,968
Total Net Project Trips			**388**	**359**	**747**	**319**	**271**	**590**	**14,394**

[1] TSF = thousand square feet; VFP = Vehicle Fueling Positions; TUN = Tunnels

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August 15, 2024

Mathew Evans
City of Perris
135 North D Street
Perris CA 92570

Re: 2024080050 Perris Gateway Project, Riverside County

Dear Mr. Evans:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@NAHC.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

JASON E. UHLEY
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RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

258094

August 29, 2024

City of Perris
Planning Department
135 North D Street
Perris, CA 92570

Attention: Mathew Evans

Re: Perris Gateway Project SPA 22-05280
DPR 22-00028, 23-00021, CUP 22-05295,
CUP 24-05141, CUP 24-05142,
TPM 22-05279 (38567) TPM 24-05150
(38985), APNs 314-170-020, 314-180-023
and 314-180-024

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittal, received August 2, 2024. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

☐ This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.

☒ This project involves District proposed Master Drainage Plan facilities, namely, Perris Valley Master Drainage Plan Line F Basin to protect the site from offsite flows. The basin is located to the northwest of the site. The District will accept ownership of such facilities on written request by the City. The Project Applicant shall enter into a cooperative agreement establishing the terms and conditions of inspection, operation, and maintenance with the District and any other maintenance partners. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required. All regulatory permits (and all documents pertaining thereto, e.g., Habitat Mitigation and Monitoring Plans, Conservation Plans/Easements) that are to be secured by the Applicant for both facility construction and maintenance shall be submitted to the District for review. The regulatory permits' terms and conditions shall be approved by the District prior to improvement plan approval, map recordation, or finalization of the regulatory permits. There shall be no unreasonable constraint upon the District's ability to operate and maintain the flood control facility(ies) to protect public health and safety.

☐ This project proposes channels, storm drains larger than 36 inches in diameter, or other facilities that could be considered regional in nature and/or a logical extension a District's facility, the District would consider accepting ownership of such facilities on written request by the City. The Project Applicant shall enter into a cooperative agreement establishing the terms and conditions of inspection, operation, and maintenance with the District and any other maintenance partners. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required. The regulatory permits' terms and conditions shall be approved by the District prior to improvement plan approval, map recordation, or finalization of

the regulatory permits. There shall be no unreasonable constraint upon the District's ability to operate and maintain the flood control facility(ies) to protect public health and safety.

☒ This project is located within the limits of the District's ☒Perris Valley ☐San Jacinto River ☐Homeland/Romoland Line A ☐Homeland/Romoland Line B Area Drainage Plan for which drainage fees have been adopted. If the project is proposing to create additional impervious surface area, applicable fees should be paid (in accordance with the Rules and Regulations for Administration of Area Drainage Plans) to the Flood Control District or City prior to issuance of grading or building permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.

☒ An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, Perris Valley MDP Line F and Perris Valley MDP Line E. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.

☐ The District's previous comments are still valid.

GENERAL INFORMATION

The project proponent shall bear the responsibility for complying with all applicable mitigation measures defined in the California Environmental Quality Act (CEQA) document, and/or Mitigation Monitoring and Reporting Program, and with all other federal, state, and local environmental rules and regulations that may apply such as but not limited to the Multiple Species Habitat Conservation Plan (MSHCP), Section 404 and 401 of the Clean Water Act, California Fish and Game Code Section 1602, and Porter Cologne Water Quality Control Act. The District's action associated with the subject project triggers evaluation by the District with respect to applicant's compliance with federal, state and local environmental laws. For this Project, the Lead Agency is the City of Riverside, and the District is a Responsible Agency under CEQA. The District, as a Co-permittee under the MSHCP, needs to demonstrate that all District related activities, including the actions identified above, are consistent with MSHCP. This is typically achieved through determinations from the CEQA Lead Agency (if they are also a Co-permittee) for the project. For the MSHCP, the District's focus will be particular to sections 6.1.2, 6.1.3, 6.1.4, 6.3.2, 7.3.7, 7.5.3 and appendix C of the MSHCP. Please include consistency determination statements from the Lead Agency/Co-permittee for the project for each of these sections in the CEQA document. The District may also require that an applicant provide supporting technical documentation for environmental clearance.

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,

Amy McNeill

AMY MCNEILL
Engineering Project Manager

EM:blj

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
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SENT VIA E-MAIL:
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Mathew Evans, Project Planner
City of Perris
135 N D St,
Perris, CA 92570

September 3, 2024

Notice of Preparation of a Draft Environmental Impact Report for the Perris Gateway Project (Proposed Project) (SCH No. 2024080050)

South Coast Air Quality Management District (South Coast AQMD) staff appreciate the opportunity to comment on the above-mentioned document. Our comments are recommendations on the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send a copy of the Draft EIR upon its completion and public release directly to South Coast AQMD as copies of the Draft EIR submitted to the State Clearinghouse are not forwarded. **In addition, please send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses (electronic versions of all emission calculation spreadsheets, air quality modeling, and health risk assessment input and output files, not PDF files). Any delays in providing all supporting documentation for our review will require additional review time beyond the end of the comment period.**

Responsible Agency and South Coast AQMD Permits

CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of the process for conducting a review of the Proposed Project and issuing discretionary approvals. Moreover, it is important to note that if a Responsible Agency determines that a CEQA document is not adequate to rely upon for its discretionary approvals, the Responsible Agency must take further actions listed in CEQA Guideline Section 15096(e), which could have the effect of delaying the implementation of the Proposed Project. In its role as CEQA Responsible Agency, the South Coast AQMD is obligated to ensure that the CEQA document prepared for this Proposed Project contains a sufficient project description and analysis to be relied upon in order to issue any discretionary approvals that may be needed for air permits.

For these reasons, the final CEQA document should be revised to include a discussion about any and all new stationary and portable equipment requiring South Coast AQMD air permits, provide the evaluation of their air quality and greenhouse gas impacts, and identify South Coast AQMD as a Responsible Agency for the Proposed Project as this information will be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on permits, please visit South Coast AQMD's webpage at https://www.aqmd.gov/home/permits.

CEQA Air Quality Analysis

Staff recommends that the Lead Agency use South Coast AQMD's CEQA Air Quality Handbook and website[1] as guidance when preparing the air quality and greenhouse gas analyses. It is also recommended that the Lead Agency use the CalEEMod[2] land use emissions software, which can estimate pollutant emissions from typical land use development and is the only software model maintained by the California Air Pollution Control Officers Association.

South Coast AQMD has developed both regional and localized significance thresholds. South Coast AQMD staff recommends that the Lead Agency quantify criteria pollutant emissions and compare the emissions to South Coast AQMD's air quality significance thresholds[3] and localized significance thresholds (LSTs)[4] to determine the Proposed Project's air quality impacts. The localized analysis can be conducted by either using the LST screening tables or performing dispersion modeling.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips, and hauling trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers and air pollution control devices), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's air quality significance thresholds for *operation* to determine the level of significance.

The Proposed Project would include, among other things, two gasoline service stations. Benzene, which is a toxic air contaminant, may be emitted from the operation. To ensure that sensitive receptors are not going to be adversely affected by the exposure to benzene, it is recommended that the Lead Agency evaluate, quantify, and perform a health risk assessment for the Proposed Project in the Draft EIR[5].

---

[1] South Coast AQMD's CEQA Air Quality Handbook and other resources for preparing air quality analyses can be found at: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.

[2] CalEEMod is available free of charge at: www.caleemod.com.

[3] South Coast AQMD's air quality significance thresholds can be found at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf

[4] South Coast AQMD's guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

[5] South Coast AQMD. Guidance for performing a gasoline dispensing station health risk assessment can be found here: http://www.aqmd.gov/home/permits/risk-assessment.

Mitigation Measures

In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook,[6] South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2022 Air Quality Management Plan,[7] and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.[8].

South Coast AQMD staff is available to work with the Lead Agency to ensure that air quality, greenhouse gas, and health risk impacts from the Proposed Project are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at swang1@aqmd.gov.

Sincerely,

Sam Wang

Sam Wang
Program Supervisor, CEQA IGR
Planning, Rule Development & Implementation

SW
RVC240807-15
Control Number

[6] https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook

[7] South Coast AQMD's 2022 Air Quality Management Plan can be found at: http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan (Chapter 4 - Control Strategy and Implementation).

[8] Southern California Association of Governments' 2020-2045 RTP/SCS can be found at: https://www.connectsocal.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf.

Appendix B

Air Quality Impact Analysis

Perris Gateway
(DPR22-00028; CUP 22-05295; TPM 38567)
AIR QUALITY IMPACT ANALYSIS
CITY OF PERRIS

PREPARED BY:

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JANUARY 7, 2025

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LIST OF ABBREVIATED TERMS

%	Percent
°F	Degrees Fahrenheit
(1)	Reference
$\mu g/m^3$	Microgram per Cubic Meter
1992 CO Plan	*1992 Federal Attainment Plan for Carbon Monoxide*
1993 CEQA Handbook	*SCAQMD's CEQA Air Quality Handbook (1993)*
2016-2040 RTP/SCS	*2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*
AB 2595	California Clean Air Act
ADA	Americans with Disabilities Act
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
Ave.	Avenue
BACT	Best Available Control Technology
BC	Black Carbon
Blvd.	Boulevard
Brief	*Brief of Amicus Curiae by the SCAQMD in the Friant Ranch Case*
C_2Cl_4	Perchloroethylene
C_4H_6	1,3-butadiene
C_6H_6	Benzene
C_2H_3Cl	Vinyl Chloride
C_2H_4O	Acetaldehyde
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CEQA Guidelines	Guidelines for Implementation of the California Environmental Quality Act

CH_2O	Formaldehyde
City	City of Perris
CO	Carbon Monoxide
COH	Coefficient of Haze
COHb	Carboxyhemoglobin
Cr(VI)	Chromium
CTP	Clean Truck Program
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EC	Elemental Carbon
EIR	Environmental Impact Report
EMFAC	EMissions FACtor Model
EPA	Environmental Protection Agency
ETW	Equivalent Test Weight
Exwy.	Expressway
GHG	Greenhouse Gas
GVWR	Gross Vehicle Weight Rating
H_2S	Hydrogen Sulfide
HDT	Heavy Duty Trucks
HHDT	Heavy-Heavy-Duty Trucks
HI	Hazard Index
hp	Horsepower
HRA	Health Risk Assessment
HVIP	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project
Hwy.	Highway
lbs	Pounds
lbs/day	Pounds Per Day
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LST	Localized Significance Threshold
LST Methodology	*Final Localized Significance Threshold Methodology*
MARB/IPA	March Air Reserve Base/Inland Port Airport
MATES	Multiple Air Toxics Exposure Study
MCY	Motorcycles
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks

MICR	Maximum Individual Cancer Risk
MM	Mitigation Measures
mph	Miles Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2	Nitrogen
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NB	Northbound
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
O_2	Oxygen
O_3	Ozone
O_2 Deficiency	Chronic Hypoxemia
OBD-II	On-Board Diagnostic
ODC	Ozone Depleting Compounds
Pb	Lead
PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
POLA	Port of Los Angeles
POLB	Port of Long Beach
ppm	Parts Per Million
Project	Perris Gateway
PVCCSP	Perris Valley Commerce Center Specific Plan
PVCCSP EIR	*Perris Valley Commerce Center Specific Plan Environmental Impact Report SCH No. 2009081086*
RECLAIM	Regional Clean Air Incentives Market
RFG-2	Reformulated Gasoline Regulation
ROG	Reactive Organic Gases
RTA	Riverside Transit Agency
SB	Southbound
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIPs	State Implementation Plans
SO_2	Sulfur Dioxide

SO_4	Sulfates
SO_X	Sulfur Oxides
SoCalGas	The Southern California Gas Company
SOON	Surplus Off-Road Opt-in for Nitrogen Oxides
SRA	Source Receptor Area
St.	Street
TA	*Perris Gateway Traffic Analysis*
TAC	Toxic Air Contaminant
TDM	Transportation Demand Management
Title 24	California Building Code
TITLE I	Non-Attainment Provisions
TITLE II	Mobile Sources Provisions
TRU	Transport Refrigeration Unit
UFP	Ultrafine Particles
URBEMIS	URBan EMISsions
VICS	Voluntary Interindustry Commerce Solutions
VIP	On-road Heavy Duty Voucher Incentive Program
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
vph	Vehicles Per Hour

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Perris Gateway Air Quality Impact Analysis* (AQIA) are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *Guidelines for Implementation of the California Environmental Quality Act* (State *CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for each potential air quality impact under CEQA before and after any required mitigation measures (MM) described below.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	*Less Than Significant*	*n/a*
Localized Construction Emissions	3.7	*Less Than Significant*	*n/a*
Regional Operational Emissions	3.5	*Potentially Significant*	*Significant and Unavoidable*
Localized Operational Emissions	3.8	*Less Than Significant*	*n/a*
CO "Hot Spot" Analysis	3.9	*Less Than Significant*	*n/a*
Air Quality Management Plan	3.10	*Less Than Significant*	*n/a*
Sensitive Receptors	3.11	*Less Than Significant*	*n/a*
Odors	3.12	*Less Than Significant*	*n/a*
Cumulative Impacts	3.13	*Potentially Significant*	*Significant and Unavoidable*

ES.2 REGULATORY REQUIREMENTS

There are numerous requirements that development projects must comply with by law, and that were put in place by federal, State, and local regulatory agencies for the improvement of air quality.

Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or

other forms of property, or can cause excessive soiling on any other parcel shall conform to the requirements of the South Coast Air Quality Management District (SCAQMD).

SCAQMD RULES

SCAQMD Rules that are currently applicable during construction activity for this Project are described below.

SCAQMD RULE 201

A person shall not build, erect, install, alter, or replace any equipment permit unit, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants without first obtaining written authorization for such construction from the Executive Officer. A permit to construct shall remain in effect until the permit to operate the equipment for which the application was filed as granted or denied, or the application is canceled.

SCAQMD RULE 401

A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

SCAQMD RULE 402

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

SCAQMD RULE 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.

SCAQMD RULE 461

This rule attempts to reduce the health risk from gasoline transfer to and from underground storage tanks and dispensing from surface fueling stations. All gas dispensing facilities must have a vapor recovery system with an efficiency of at least 98 percent (%), an emission factor not exceeding 0.15 pounds of volatile organic compounds (VOC) per 1,000 gallons of gasoline for transfer between storage tanks and dispensing facilities, and an emission factor not exceeding 0.38 pounds of VOCs per 1,000 gallons of gasoline when dispensing into customer vehicles.

SCAQMD RULE 1113

This rule serves to limit the VOC content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the SCAQMD must comply with the current VOC standards set in this rule.

SCAQMD RULE 1301

This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the National Ambient Air Quality Standards (NAAQS), while future economic growth within the SCAQMD is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).

SCAQMD RULE 1401

This rule requires the inspection of new gas transfer and dispensing facilities by SCAQMD staff to evaluate cancer risk, which must be no more than 10 in one million over a 70-year lifespan.

Although the Project would comply with the above regulatory requirements, it should be noted that emission reductions associated with Rules 201, 401, 402, 461, 1301, and 1401 cannot be quantified in the California Emissions Estimator Model (CalEEMod) and are therefore not reflected in the emissions presented herein. Conversely, Rule 403 (Fugitive Dust) (2) and Rule 1113 (Architectural Coatings) (3) can be modeled in CalEEMod. As such, credit for Rule 403 and Rule 1113 have been taken in the analysis.

ES.3 PERRIS VALLEY COMMERCE CENTER SPECIFIC PLAN (PVCCSP) ENVIRONMENTAL IMPACT REPORT (PVCCSP EIR) MITIGATION MEASURES

The Project site is located within the PVCCSP planning area. As such, and unless otherwise noted, the Project is required to comply with the following applicable *Perris Valley Commerce Center Specific Plan Environmental Impact Report (PVCCSP EIR) SCH No. 2009081086* mitigation measures (MMs) (4).

MM Air 1

To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available URBan EMISsions (URBEMIS) model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold (LST) analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify

potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

Project-specific construction-related air quality and LST analyses have been included in this AQIA to comply with this PVCCSP EIR mitigation measure. The URBEMIS model has been replaced by CalEEMod.

MM Air 2

Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air 3

To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour (mph) or less on all unpaved potions of the project sites,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 mph,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to Particulate Matter 10 microns in diameter or less (PM10) generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air 4

Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5

Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6

The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the California Air Resources Board (CARB) in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or Environmental Protection Agency (EPA) certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNO_X unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air 7

During construction, ozone (O_3) precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 8

Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50% or other application techniques with equivalent or higher transfer efficiency.

MM Air 9

To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each

implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this MM prior to issuance of a building permit for that project.

MM Air 10

To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's LST analysis, Carbon Monoxide (CO) Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

Project-specific operational air quality, LST, and CO hotspots analyses have been included in this AQIA to comply with this PVCCSP EIR mitigation measure. The URBEMIS model has been replaced by CalEEMod.

MM Air 14

Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance would be required prior to the issuance of occupancy permits.

Implementation of this PVCCSP EIR mitigation measure is required; however, for purposes of analysis, the estimated Project-generated emissions presented in this AQIA do not reflect emission reductions that would occur with implementation of this PVCCSP EIR mitigation measure since emissions reductions from this measure are not readily quantifiable.

MM Air 18

Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the Project sites shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of Americans with Disabilities Act (ADA)-compliant paths to the major building entrances in the project.

For purposes of analysis, the estimated Project-generated emissions presented in this AQIA do not reflect emission reductions that would occur with implementation of this PVCCSP EIR mitigation

measure since emissions reductions from this measure are not readily quantifiable.

MM Air 19

In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the Project sites These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

Implementation of this PVCCSP EIR mitigation measure is required; however, for purposes of analysis, the estimated Project-generated emissions presented in this AQIA do not reflect emission reductions that would occur with implementation of this PVCCSP EIR mitigation measure since emissions reductions from this measure are not readily quantifiable.

MM Air 20

Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15% beyond Title 24, and reduce indoor water use by 25%. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

Implementation of this PVCCSP EIR mitigation measure is required; however, for purposes of analysis, the estimated Project-generated emissions presented in this AQIA do not reflect emission reductions that would occur with implementation of this PVCCSP EIR mitigation measure since emissions reductions from this measure are not readily quantifiable.

ES.4 ADDITIONAL MITIGATION MEASURES

For regional emissions, the Project has the potential to exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOC, NO_X, CO and PM_{10}. Over 90% of operational-source VOC, NO_x, CO and PM_{10} emissions would be generated from the use of mobile activities, and mobile source emissions alone would exceed the regional significance threshold for VOC, NO_X, CO and PM_{10}.

The City of Perris or the Project Applicant do not have regulatory authority to control mobile source (tailpipe) emissions, and no feasible MM beyond the measures identified above exist that would reduce VOC, NO_X, CO and PM_{10} emissions to levels that are less-than-significant, thus these emissions are considered significant and unavoidable.

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1 INTRODUCTION

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed Perris Gateway (Project). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the SCAQMD.

1.1 SITE LOCATION

The proposed Perris Gateway site is located on the northbound side of the 215 Freeway and Ramona Expressway within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCCSP) planning area as shown on Exhibit 1-A. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located less than one mile north of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. A preliminary site plan is shown on Exhibit 1-B. The Project is anticipated to be constructed in one phase by the year 2026.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: SITE PLAN

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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN (SCAB)

The Project site is located in the SCAB within the jurisdiction of SCAQMD (5). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As previously stated, the Project site is located within the SCAB, a 6,745-square-mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east and includes all of Orange County as well as the non-desert portions of San Bernardino, Los Angeles, and Riverside Counties.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO_2) to sulfates (SO_4) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_X and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Winds are

characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (6):

TABLE 2-1: CRITERIA POLLUTANTS

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike O_3, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O_2) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O_2 transport and competing with O_2 to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O_2 supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O_2 deficiency) as seen at high altitudes.
SO_2	SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes	Coal or oil burning power plants and industries, refineries, diesel engines	A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in

Criteria Pollutant	Description	Sources	Health Effects
	occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms SO_4. Collectively, these pollutants are referred to as sulfur oxides (SO_X).		resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.
NO_X	NO_X consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with O_2. Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO_X is typically created during	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than

Criteria Pollutant	Description	Sources	Health Effects
	combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of NO_X compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring station.		ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.
O_3	O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.	Formed when reactive organic gases (ROG) and NO_X react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.	Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O_3 effects. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Criteria Pollutant	Description	Sources	Health Effects
			Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and reside in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.
Particulate Matter	PM_{10}: A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduced visibility (haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, it should be noted	Sources of PM_{10} include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO_X, SO_X, organics). Incomplete combustion of any fuel. $PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment, and industrial sources,	A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by

Criteria Pollutant	Description	Sources	Health Effects
	that PM_{10} is considered a criteria air pollutant. $PM_{2.5}$: A similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO_4 formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant.	residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_X, SO_X, organics).	fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
VOC	VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and	Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some	Breathing VOCs can irritate the eyes, nose, and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.

Criteria Pollutant	Description	Sources	Health Effects
	ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	degree, when they are stored.	
ROG	Similar to VOC, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project does not include operational activities such as metal processing or Pb acid battery manufacturing. As such, the Project is not anticipated to generate a quantifiable amount of Pb emissions.	Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during

Criteria Pollutant	Description	Sources	Health Effects
			pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves (7).	Odors can come from many sources including animals, human activities, industry, nature, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.5 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. NAAQS and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (8).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May 4, 2016, as presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ do not exceed standards. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, CARB has implemented a State Implementation Plan (SIP). The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (9).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.6 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: CO, Pb, O_3, particulate matter (PM_{10} and $PM_{2.5}$), NO_2, and SO_2 which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district (10). On December 28, 2021, CARB posted the proposed 2021 amendments to the state and national area designations. See Table 2-3 for attainment designations for the SCAB (11). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SCAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb[1]	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB
"-" = The national 1-hour O_3 standard was revoked effective June 15, 2005.

2.7 LOCAL AIR QUALITY

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the district in order to provide Southern California residents about the air quality conditions. The Project site is located within the Perris Valley area (SRA 24). The Perris Valley monitoring station is located approximately 3.93 miles south of the Project site and reports air quality statistics for O_3 and PM_{10}. The Lake Elsinore monitoring station, which is located 12.64 miles southwest of the Project site in SRA 25, records air quality data for CO and NO_2. The Riverside County 1 monitoring station, which is located 14.10 miles northwest of the Project site in SRA 23 records air quality data for $PM_{2.5}$. It should be noted that data from Lake Elsinore and Riverside County 1 monitoring station was utilized in lieu of the Perris Valley monitoring station only in instances where data was not available.

The most recent three (3) years of data available is shown on Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Development Site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ for 2021 through 2023 was obtained from the SCAQMD Air Quality Data Tables (12).

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

Additionally, data for SO_2 has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations.

TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2021-2023

Pollutant	Standard	Year		
		2021	2022	2023
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.117	0.121	0.120
Maximum Federal 8-Hour Concentration (ppm)		0.094	0.091	0.103
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	25	17	10
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	60	37	35
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	0.9	0.9	1.3
Maximum Federal 8-Hour Concentration	> 20 ppm	0.8	0.6	0.7
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.044	0.037	0.042
Annual Federal Standard Design Value		0.007	0.007	0.007
PM_{10}				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 150 µg/m^3	89	91	186
Annual Federal Arithmetic Mean (µg/m^3)		21.4	19.8	20.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m^3	0	0	1
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m^3	4	1	5
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 35 µg/m^3	82.10	38.5	48.7
Annual Federal Arithmetic Mean (µg/m^3)	> 12 µg/m^3	12.58	10.80	10.47
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m^3	10	1	1

ppm = Parts Per Million
µg/m^3 = Microgram per Cubic Meter
Source: Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained from SCAQMD Air Quality Data Tables.

2.8 REGULATORY BACKGROUND

2.8.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and Pb (13). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (14). The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (15) (16). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 2-3 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

2.8.2 CALIFORNIA REGULATIONS

CARB

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (17) (13).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;

- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (18). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (19):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).

- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).

- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

2.8.3 AQMP

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMP to meet the state and federal ambient air quality standards (20). AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.10.

2.9 REGIONAL AIR QUALITY IMPROVEMENT

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists of is known as the SCAB. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

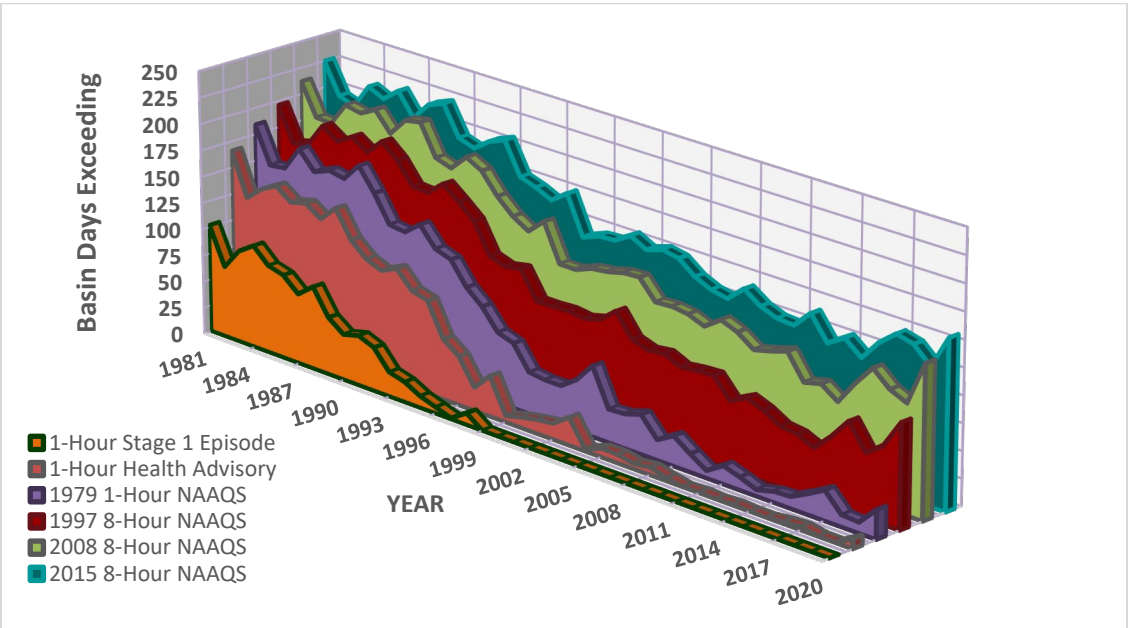
SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in SCAB air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the SCAB. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire SCAB. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the SCAB. AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

Emissions of O_3, NO_X, VOC, and CO have been decreasing in the SCAB since 1975 (21). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older

polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. O_3 contour maps show that the number of days exceeding the 8-hour NAAQS has generally decreased between 1980 and 2020. For 2020, there was an overall decrease in exceedance days compared with the 1980 period. However, as shown on Table 2-5, O_3 levels have increased in the past three years due to higher temperatures and stagnant weather conditions. Notwithstanding, O_3 levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 70's (22).

TABLE 2-5: SCAB O_3 TREND



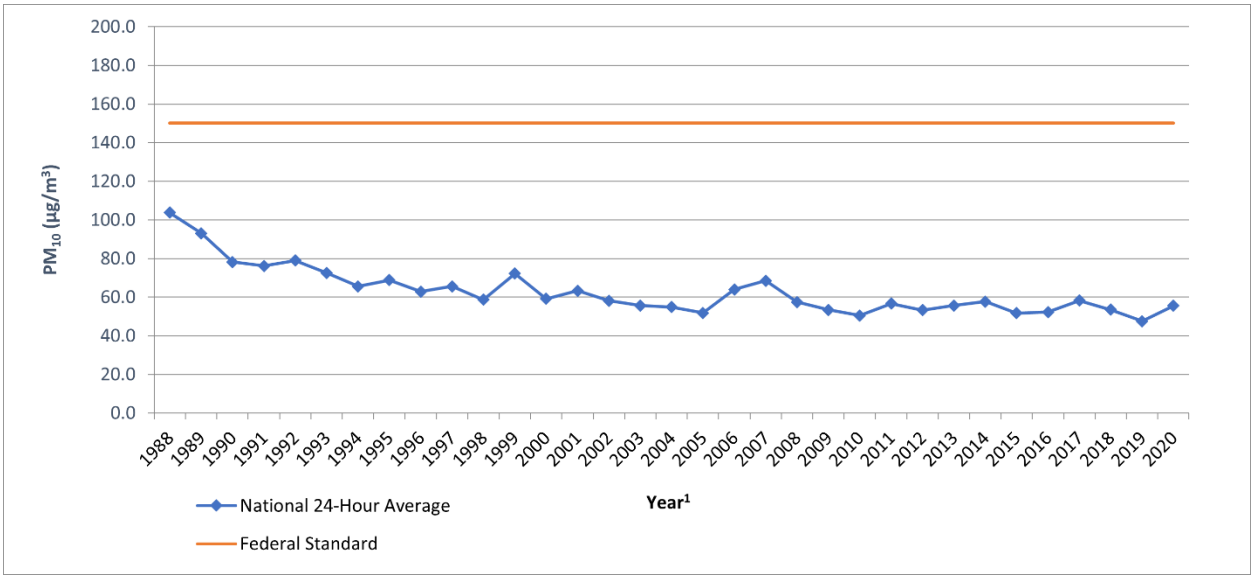
Source: 2020 SCAQMD, Historical O_3 Air Quality Trends (1976-2020)

The overall trends of PM_{10} and $PM_{2.5}$ levels in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM_{10} have remained somewhat constant in the SCAB and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction, and other sources) contribute the greatest amount of direct particulate matter emissions.

As with other pollutants, the most recent PM_{10} statistics show an overall improvement as illustrated in Tables 2-6 and 2-7. During the period for which data are available, the 24-hour national annual average concentration for PM_{10} decreased by approximately 46%, from 103.7 microgram per cubic meter (µg/m³) in 1988 to 55.5 µg/m³ in 2020 (23). Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations would exceed the threshold. The 24-hour state annual average for emissions for PM_{10}, have decreased by approximately 64%, from 93.9 µg/m³ in 1989 to 33.9 µg/m³ in 2020 (23). Although data in the late 1990's show some variability, this is probably due to the advances in meteorological science rather than a change in emissions. Similar to the ambient

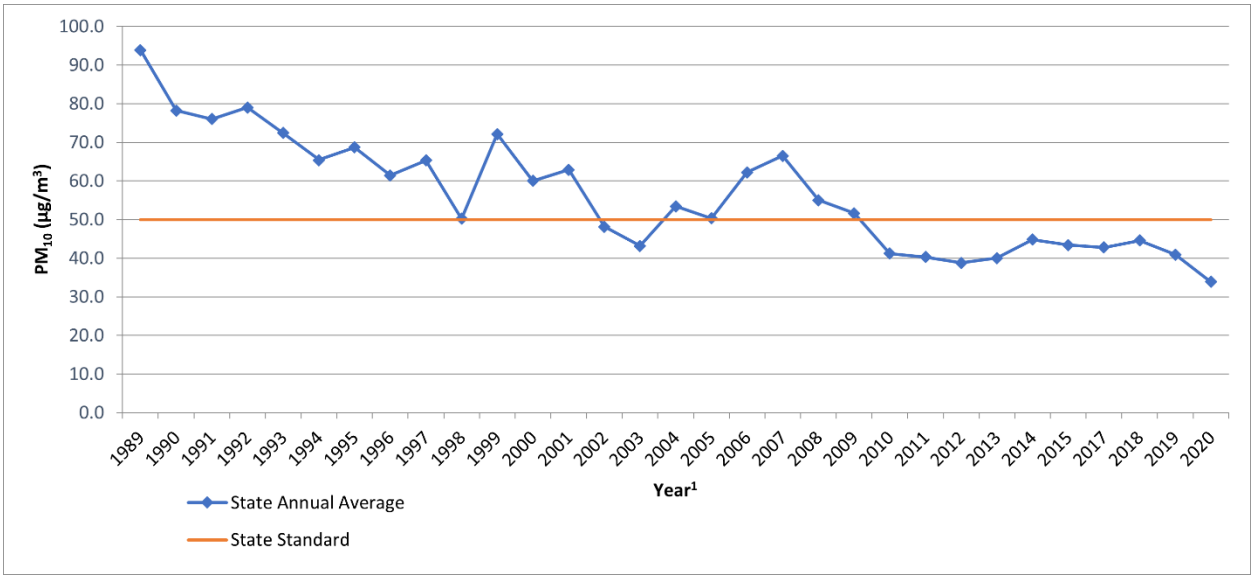
concentrations, the calculated number of days above the 24-hour PM_{10} standards has also shown an overall drop.

TABLE 2-6: SCAB AVERAGE 24-HOUR CONCENTRATION PM_{10} TREND (BASED ON FEDERAL STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: PM_{10} 24-Hour Averages (1988-2020)
[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

TABLE 2-7: SCAB ANNUAL AVERAGE CONCENTRATION PM_{10} TREND (BASED ON STATE STANDARD)[1]

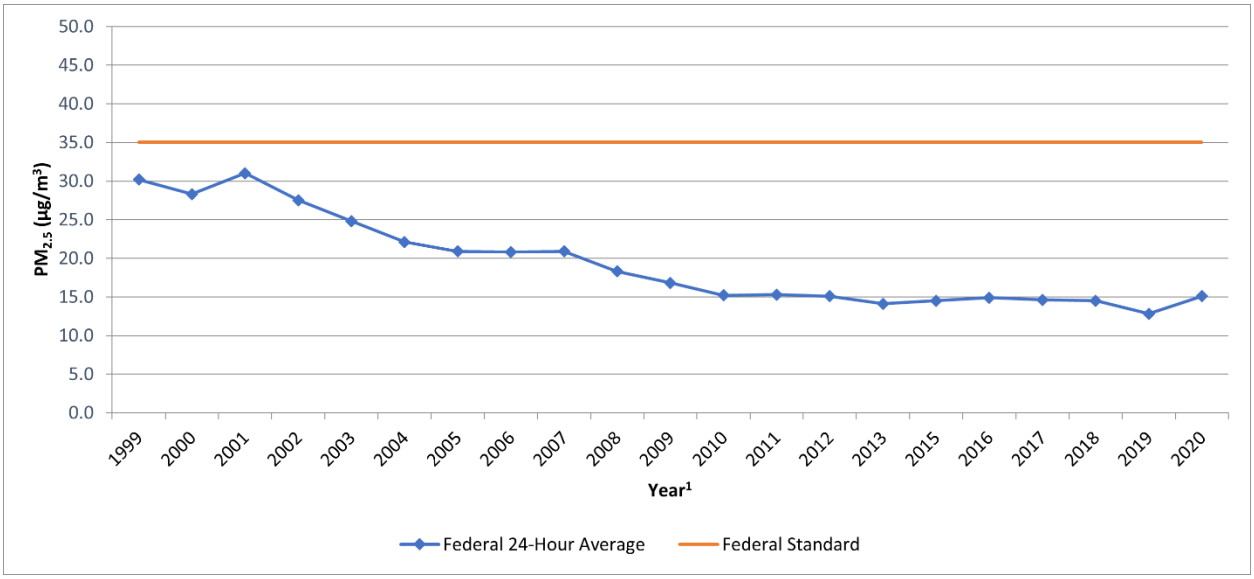


Source: 2020 CARB, iADAM: Top Four Summary: PM_{10} 24-Hour Averages (1988-2020)
[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

Tables 2-8 and 2-9 shows the most recent 24-hour average $PM_{2.5}$ concentrations in the SCAB from 1999 through 2020. Overall, the national and state annual average concentrations have

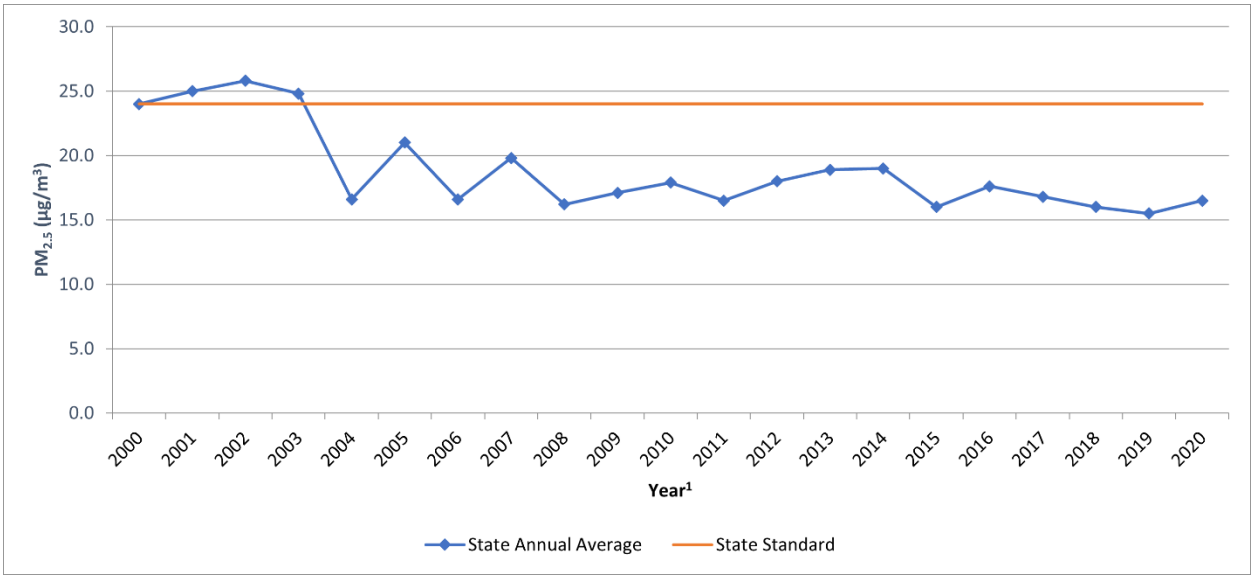
decreased by almost 50% and 31% respectively (23). It should be noted that the SCAB is currently designated as nonattainment for the state and federal $PM_{2.5}$ standards.

TABLE 2-8: SCAB 24-HOUR AVERAGE CONCENTRATION $PM_{2.5}$ TREND (BASED ON FEDERAL STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: $PM_{2.5}$ 24-Hour Averages (1999-2020)
[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

TABLE 2-9: SCAB ANNUAL AVERAGE CONCENTRATION $PM_{2.5}$ TREND (BASED ON STATE STANDARD)[1]



Source: 2020 CARB, iADAM: Top Four Summary: $PM_{2.5}$ 24-Hour Averages (1999-2020)
[1] Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

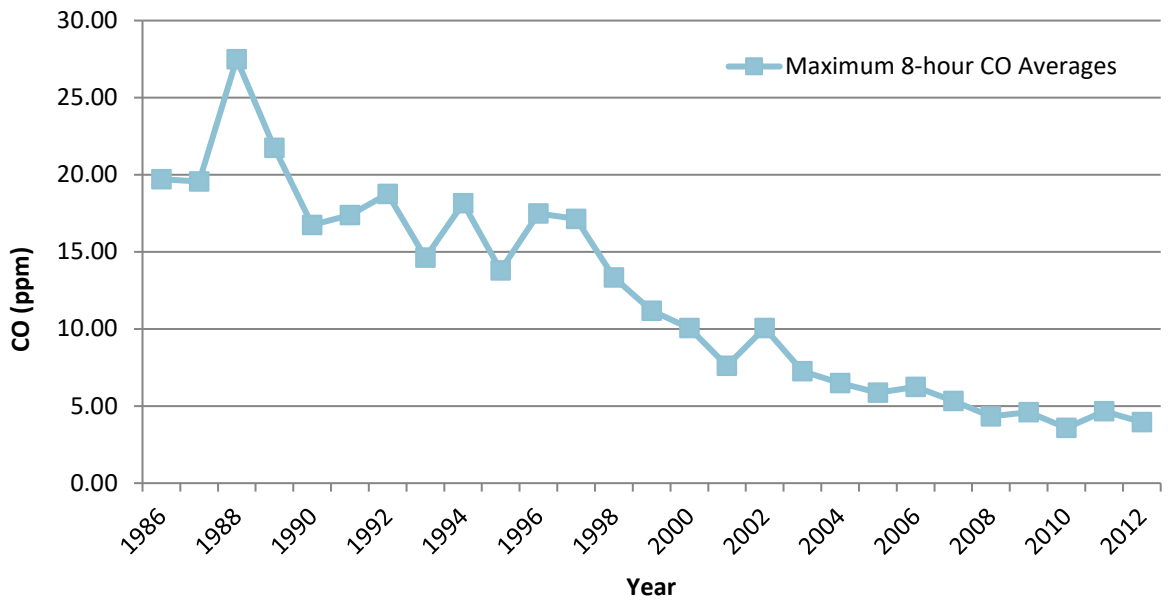
While the 2012 AQMP PM_{10} attainment demonstration and the 2015 associated supplemental SIP submission indicated that attainment of the 24-hour standard was predicted to occur by the end of 2015, it could not anticipate the effect of the ongoing drought on the measured $PM_{2.5}$.

The 2006 to 2010 base period used for the 2012 attainment demonstration had near-normal rainfall. While the trend of $PM_{2.5}$-equivalent emission reductions continued through 2015, the severe drought conditions contributed to the $PM_{2.5}$ increases observed after 2012. As a result of the disrupted progress toward attainment of the federal 24-hour $PM_{2.5}$ standard, SCAQMD submitted a request and the EPA approved, in January 2016, a "bump up" to the nonattainment classification from "moderate" to "serious," with a new attainment deadline as soon as practicable, but not beyond December 31, 2019. As of March 14, 2019, the EPA approved portions of a SIP revision submitted by California to address CAA requirements for the 2006 24-hour $PM_{2.5}$ NAAQS in the Los Angeles-SCAB Serious $PM_{2.5}$ nonattainment area. The EPA also approved 2017 and 2019 motor vehicle emissions budgets for transportation conformity purposes and inter-pollutant trading ratios for use in transportation conformity analyses (24).

In December 2022, the SCAQMD released the Final 2022 AQMP. The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (25). Similar to the 2016 AQMP, the 2022 AQMP incorporates scientific and technological information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS) and updated emission inventory methodologies for various source categories (26).

The most recent CO concentrations in the SCAB are shown in Table 2-10 (23). CO concentrations in the SCAB have decreased markedly — a total decrease of more about 80% in the peak 8-hour concentration from 1986 to 2012. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the SCAB. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

TABLE 2-10: SCAB 8-HOUR AVERAGE CONCENTRATION CO TREND[1]

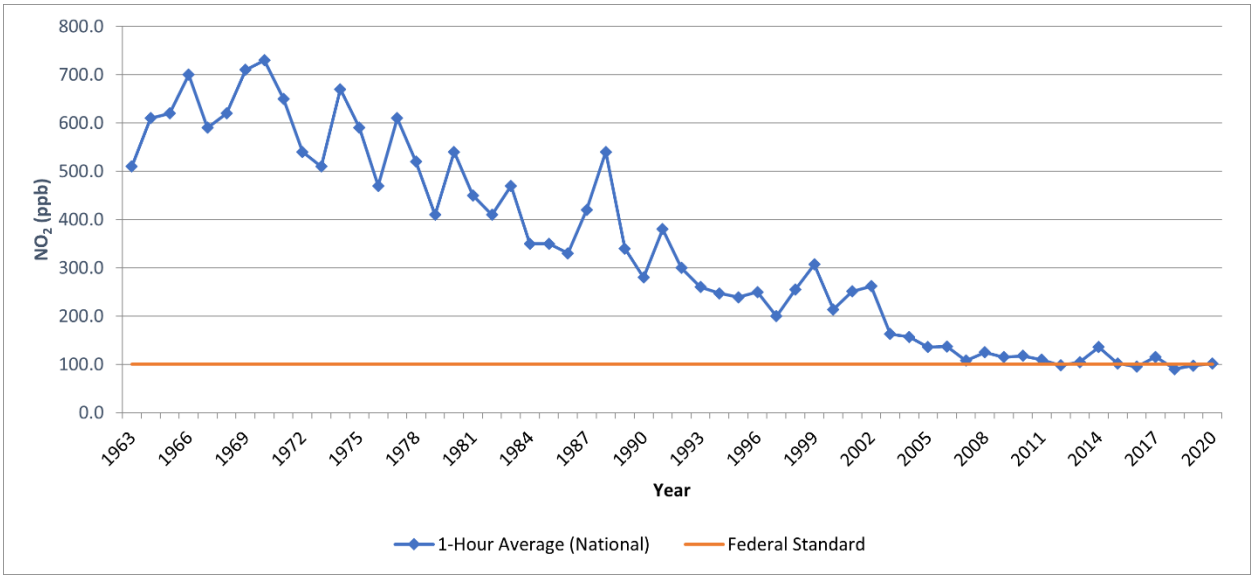


Source: 2020 CARB, iADAM: Top Four Summary: CO 8-Hour Averages (1986-2012)
[1] The most recent year where 8-hour concentration data is available is 2012.

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD's *CEQA Air Quality Handbook (1993)* (*1993 CEQA Handbook*) (27). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades. As stated by the SCAQMD, the District's thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

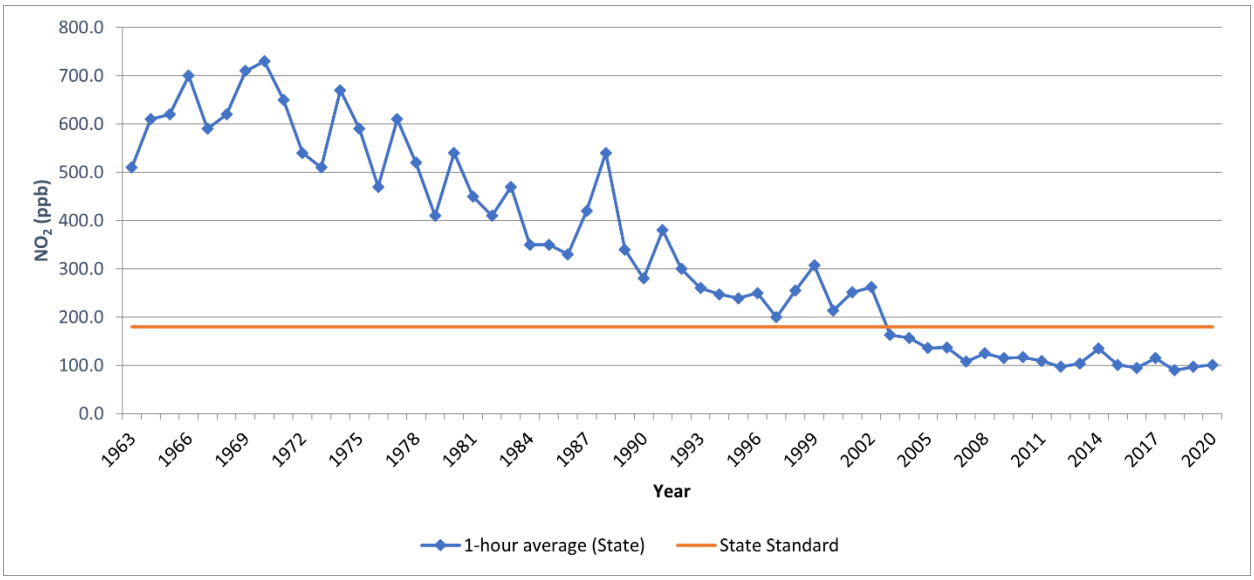
The most recent NO_2 data for the SCAB is shown in Tables 2-11 and 2-12 (23). Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour national and state averages for 2020 is approximately 80% lower than what it was during 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire state into attainment. A new state annual average standard of 0.030 ppm was adopted by CARB in February 2007 (28). The new standard is just barely exceeded in the SCAQMD. NO_2 is formed from NO_X emissions, which also contribute to O_3. As a result, the majority of the future emission control measures would be implemented as part of the overall O_3 control strategy. Many of these control measures would target mobile sources, which account for more than three-quarters of California's NO_X emissions. These measures are expected to bring the SCAQMD into attainment of the state annual average standard.

TABLE 2-11: SCAB 1-HOUR AVERAGE CONCENTRATION NO_2 TREND (BASED ON FEDERAL STANDARD)



Source: 2020 CARB, iADAM: Top Four Summary: CO 1-Hour Averages (1963-2020)

TABLE 2-12: SCAB 1-HOUR AVERAGE CONCENTRATION NO_2 TREND (BASED ON STATE STANDARD)



Source: 2020 CARB, iADAM: Top Four Summary: CO 1-Hour Averages (1963-2020)

2.9.1 TOXIC AIR CONTAMINANTS (TAC) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of TAC emissions resulting from mobile and area sources, such as cars, trucks, stationary sources, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article (29) which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for

the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (between 1990 and 2012). The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene (C_6H_6), and 1,3-butadiene (C_4H_6); those that are derived from stationary sources: perchloroethylene (C_2Cl_4) and hexavalent chromium (Cr(VI)); and those derived from photochemical reactions of emitted VOCs: formaldehyde (CH_2O) and acetaldehyde (C_2H_4O)[2]. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

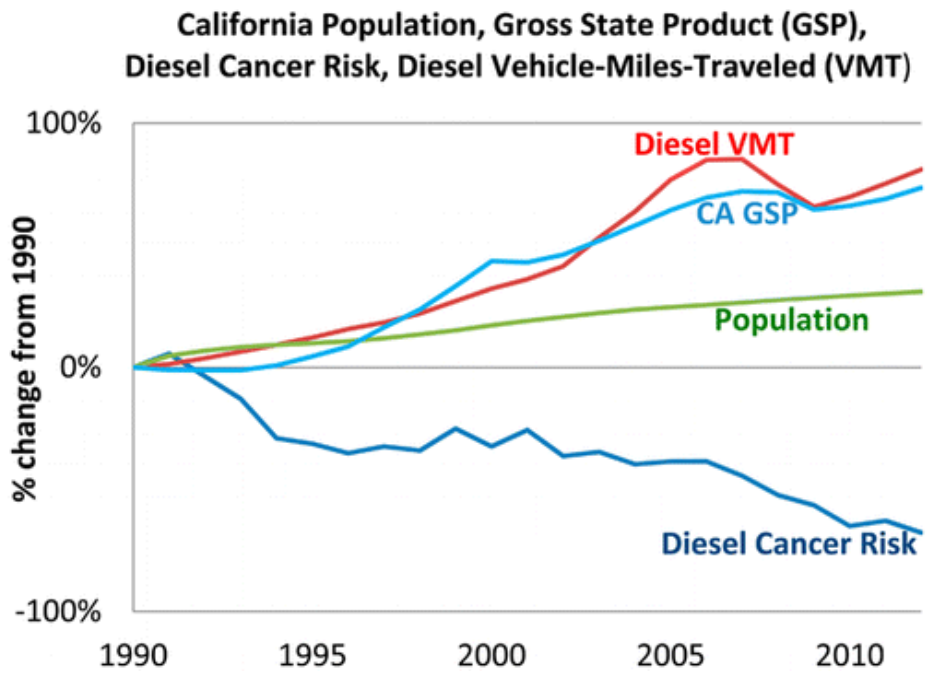
MOBILE SOURCE TACS

CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. In California, light-duty vehicles sold after 1996 are equipped with California's second-generation On-Board Diagnostic (OBD-II) system. The OBD-II system monitors virtually every component that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the OBD-II system illuminates a warning lamp on the vehicle instrument panel to alert the driver. This warning lamp typically contains the phrase "Check Engine" or "Service Engine Soon." The system would also store important information about the detected malfunction so that a repair technician can accurately find and fix the problem. CARB has recently developed similar OBD requirements for heavy-duty vehicles over 14,000 pounds (lbs). CARB's phase II Reformulated Gasoline Regulation (RFG-2), adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the use of reformulated gasoline and motor vehicle regulations (29).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15 ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% since 2000, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, CARB expects a DPM decline of 71% for 2000-2020.

[2] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

EXHIBIT 2-A: DPM AND DIESEL VEHICLE MILES TREND



Source: 2020 CARB

DIESEL REGULATIONS

CARB and the Ports of Los Angeles and Long Beach (POLA and POLB) have adopted several iterations of regulations for diesel trucks that are aimed at reducing DPM. More specifically, CARB Drayage Truck Regulation (30), CARB statewide On-road Truck and Bus Regulation (31), and the Ports of Los Angeles and Long Beach Clean Truck Program (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (32). In other words, older more polluting trucks would be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HDT), in terms of grams of DPM generated per mile traveled, would dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the SCAB has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study called the Multiple Air Toxics Exposure Study (MATES). DPM accounts for more than 70% of the cancer risk.

In January 2018, as part of the overall effort to reduce air toxics exposure in the SCAB, SCAQMD began conducting the MATES V Program. MATES V field measurements were conducted at ten fixed sites (the same sites selected for MATES III and IV) to assess trends in air toxics levels. MATES V also included measurements of ultrafine particles (UFP) and black carbon (BC) concentrations, which can be compared to the UFP levels measured in MATES IV (33). The final report for the MATES V study was published in August 2021. In addition to new measurements and updated modeling results, several key updates were implemented in MATES V. First, MATES V estimates cancer risks by taking into account multiple exposure pathways, which includes inhalation and non-inhalation pathways. This approach is consistent with how cancer risks are estimated in South Coast AQMD's programs such as permitting, Air Toxics Hot Spots (AB2588), and CEQA. Previous MATES studies quantified the cancer risks based on the inhalation pathway only. Second, along with cancer risk estimates, MATES V includes information on the chronic non-cancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic non-cancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazard Assessment (OEHHA) and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time (34).

MATES-V calculated cancer risks based on monitoring data collected at ten fixed sites within the SCAB. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-V has extrapolated the excess cancer risk levels throughout the SCAB by modeling the specific grids. The Project is located within a quadrant of the geographic grid of the MATES-V model which predicted a cancer risk of 308 in one million for the area containing the Project site. The air toxic cancer risk in the Project area is higher than 15% of the SCAQMD population. DPM is included in this cancer risk along with all other TAC sources. As in previous MATES iterations, diesel PM is the largest contributor to overall air toxics cancer risk. However, the average levels of diesel PM in MATES V are 53% lower at the 10 monitoring sites compared to MATES IV. Cumulative Project generated TACs are limited to DPM.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

This study quantifies air quality emissions generated by construction and operation of the Project and addresses whether the Project conflicts with implementation of the SCAQMD's AQMP and Lead Agency planning regulations. The analysis of Project-generated air emissions determines whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment under an applicable NAAQS and CAAQS. Additionally, the Project has been evaluated to determine whether the Project would expose sensitive receptors to substantial pollutant concentrations and the impacts of odors. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the *State CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (1):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD has developed regional significance thresholds for criteria pollutants, as summarized at Table 3-1 (35). The SCAQMD's *CEQA Air Quality Significance Thresholds* (March 2023) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

3.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY

3.3.1 CALEEMOD

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

In May 2023, California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod version 2022.1.1.12. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOC, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (36). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendices 3.1 and 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of VOC, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. This analysis assumes that earthwork activities are expected to balance on site and no import or export of soils would be required.

ON-ROAD TRIPS

Construction generates on-road vehicle emissions from vehicle usage for workers and vendors commuting to and from the site. The number of worker and vendor trips are presented below in Table 3-2. It should be noted that for Vendor Trips, specifically, CalEEMod only assigns Vendor Trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for Vendor Trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 3-2: CONSTRUCTION TRIP ASSUMPTIONS

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day
Site Preparation	18	1
Grading	20	2
Building Construction	52	19
Architectural Coating	15	0
Paving	10	0

3.4.1 CONSTRUCTION DURATION

For purposes of analysis, construction of the Project is expected to last approximately 19 months, commencing in October 2024 and being completed in May 2026. The construction schedule utilized in the analysis, shown in Table 3-3, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent[3]. The duration of construction activity and associated equipment was based on information provided by the Project Applicant and represents a reasonable approximation of the expected construction fleet as required per the *State CEQA Guidelines* (1).

3.4.2 CONSTRUCTION EQUIPMENT

A summary of construction equipment by phase is provided at Table 3-4. Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code City's Municipal Code, Section 7.34.060 (Appendix 3.1) (37). It should be noted that PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards.

TABLE 3-3: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Days
Site Preparation	10/1/2024	10/14/2024	10
Grading	10/15/2024	12/2/2024	35
Building Construction	12/3/2024	5/4/2026	370
Paving	10/28/2025	5/4/2026	135
Architectural Coating	10/28/2025	5/4/2026	135

[3] As shown in the CalEEMod User's Guide Version 2020.4.0, Section 4.3 "Off-Road Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment[1]	Amount	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

[1] In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes during the site preparation and grading phases.

3.4.3 CONSTRUCTION EMISSIONS SUMMARY

IMPACTS WITHOUT MITIGATION

CalEEMod calculates maximum daily emissions for summer and winter periods. The estimated maximum daily construction emissions without mitigation are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction will not exceed criteria pollutant thresholds established by the SCAQMD for emissions of any criteria pollutant.

TABLE 3-5: OVERALL CONSTRUCTION EMISSIONS SUMMARY – WITHOUT MITIGATION

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
2025	0.59	10.35	19.85	0.03	0.94	0.30
2026	3.71	19.03	33.26	0.05	1.39	0.50
Winter						
2024	0.90	19.62	36.63	0.06	6.00	2.84
2025	3.71	19.15	32.24	0.05	1.39	0.50
2026	3.69	19.09	31.93	0.05	1.39	0.50
Maximum Daily Emissions	**3.71**	**19.62**	**36.63**	**0.06**	**6.00**	**2.84**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.1.

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the Project will result in emissions of VOC, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Operational emissions are expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Gasoline Dispensing Emissions

3.5.1 AREA SOURCE EMISSIONS

ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project will require maintenance and will therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. It should be noted that per PVCCSP EIR MM Air 9, the Project shall be required to use no more than 10 g/L of "Super-Compliant" VOC paints during architectural coating. The emissions associated with architectural coatings, which includes PVCCSP EIR MM Air 9, were calculated using CalEEMod.

CONSUMER PRODUCTS

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other

photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on default assumptions provided in CalEEMod.

3.5.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and retail customers. Trip characteristics available from the *Perris Gateway Traffic Analysis* (TA) were utilized in this analysis (38). Per the *Perris Gateway Traffic Analysis*, the proposed Project is expected to generate approximately 14,394 total trips per day.

FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

3.5.4 GASOLINE DISPENSING EMISSIONS

Operational VOC emissions have been analyzed using CalEEMod analysis software and methodology and are based on the default assumptions for a convenience store with fueling positions use. The operational VOC emissions estimates associated with this use was previously shown in Table 3-6.

The storage, transfer and dispensing of gasoline is not expected to generate significant VOC emissions. The enhanced vapor recovery systems required by SCAQMD Rule 461 would substantially reduce VOC emissions and mitigate any potential for the proposed gas station to exceed the daily emissions thresholds set by SCAQMD.

For example, SCAQMD Rule 461 sets a maximum limit of 0.15 pounds of VOC per 1,000 gallons from the storage, transfer and dispensing of gasoline and 0.38 pounds of VOC per 1,000 gallons from the dispensing of gasoline into vehicle fuel tanks for a total of 0.53 pounds of VOC per 1,000 gallons of gasoline. The USEPA has developed a workbook to estimate emissions from the maximum potential throughput, which was used for diesel dispensing emissions (39). The Project includes a 12 VFP and 20 VFP Gas Station use. According to USEPA, the anticipated average annual throughput of fuel for the 12 VFP Gas Station is 4,625,280. The anticipated average annual throughput of fuel for the 20 VFP Gas Station is 7,708,800. Based on this USEPA throughput estimate, the Project will potentially dispense a combined 12,333,560 gallons of gasoline per year or 33,790 gallons/day. By dividing the throughput per day by 1,000 and then multiplying by 0.53, it was determined that the Project would result in 6.47 pounds of additional VOC emissions per day from gasoline dispensing.

3.5.5 OPERATIONAL EMISSIONS SUMMARY

Operational-source emissions are summarized in Table 3-6. As indicated, the Project would exceed regional thresholds of significance established by the SCAQMD for emissions of VOC, NO_X, CO and PM_{10}. Over 87% of operational-source VOC and 90% of operational-source NO_x, CO and PM_{10} emissions would be generated from the use of mobile activities. Mobile source emissions alone would exceed the regional significance threshold for VOC, NO_X, CO and PM_{10}. As previously stated, the Project is required to comply with the applicable PVCCSP EIR mitigation measures identified in Section ES.3. In particular, PVCCSP EIR mitigation measures MM Air 8 and MM Air 9 would reduce VOC emissions resulting from the application of architectural coatings. It should be noted that no additional feasible mitigation measures, beyond the measures identified in Section ES.3 exist that would further reduce these emissions to levels that are less-than-significant.

Although the Project would implement the mitigation measures listed in section ES.3, it should be noted that there is no way to definitively quantify these reductions in CalEEMod. As such, no reductions are shown as a conservative measure (i.e., impacts are overstated). Neither the Project applicant nor the Lead Agency (City) can substantively or materially affect reductions in Project mobile-source emissions beyond the regulatory requirements and mitigation measures identified herein. Therefore, the proposed Project would result in a significant and unavoidable impact in this regard.

TABLE 3-6: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
Mobile Source	72.56	72.81	681.03	1.73	152.25	39.51
Area Source	3.76	0.05	5.49	0.00	0.01	0.01
Energy Source	0.08	1.45	1.22	0.01	0.11	0.11
Gasoline Dispensing	6.47	0.00	0.00	0.00	0.00	0.00

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Total Maximum Daily Emissions	**82.86**	**74.31**	**687.74**	**1.74**	**152.37**	**39.63**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**
Winter						
Mobile Source	67.92	78.07	567.64	1.62	152.25	39.51
Area Source	2.85	0.00	0.00	0.00	0.00	0.00
Energy Source	0.08	1.45	1.22	0.01	0.11	0.11
Gasoline Dispensing	6.47	0.00	0.00	0.00	0.00	0.00
Total Maximum Daily Emissions	**77.32**	**79.52**	**568.86**	**1.63**	**152.36**	**39.62**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**

Source: CalEEMod operation-source emissions are presented in Appendix 3.2.

3.6 LOCALIZED SIGNIFICANCE

BACKGROUND ON LST DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as LSTs.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4[4]. LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the *LST Methodology* (40).

[4] The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate SRA for the LST analysis is the SCAQMD Perris Valley (SRA 24). LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- Identify the maximum daily on-site emissions that will occur during construction activity:
  - The maximum daily on-site emissions could be based on information provided by the Project Applicant; or
  - The SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and CalEEMod User's Guide *Appendix A: Calculation Details for CalEEMod* can be used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod (41) (42).
- If the total acreage disturbed is less than or equal to 5 acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in lbs/day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than 5 acres per day, then LST impacts may still be conservatively evaluated using the LST look-up tables for a 5-acre disturbance area. Use of the 5-acre disturbance area thresholds can be used to show that even if the daily emissions from all construction activity were emitted within a 5-acre area, and therefore concentrated over a smaller area which would result in greater site adjacent concentrations, the impacts would still be less than significant if the applicable 5-acre thresholds are utilized.
- The *LST Methodology* presents mass emission rates for each SRA, project sizes of 1, 2, and 5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given receptors, the methodology uses linear interpolation to determine the thresholds.

EMISSIONS CONSIDERED

Based on SCAQMD's *LST Methodology*, emissions for concern during construction activities are on-site NO_X, CO, $PM_{2.5}$, and PM_{10}. The *LST Methodology* clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs (43)." As such, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

The "acres disturbed" for analytical purposes are based on specific equipment type for each subcategory of construction activity and the estimated maximum area a given piece of equipment can pass over in an 8-hour workday (as shown on Table 3-10). The equipment-specific grading rates are summarized in the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and CalEEMod User's Guide *Appendix C: Emission Calculation Details for CalEEMod* (41) (44). The disturbed area per day is representative of a piece of equipment making

multiple passes over the same land area. In other words, one Rubber Tired Dozer can make multiple passes over the same land area totaling 0.5 acres in a given 8-hour day. Based on Table 3-7, the Project's construction activities could actively disturb approximately 3.5 acres per day during site preparation and 4 acres per day during grading activities.

TABLE 3-7: MAXIMUM DAILY DISTURBED-ACREAGE

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8-hour day	Operating Hours per Day	Acres graded per day
Site Preparation	Crawler Tractors	4	0.5	8	2
	Rubber Tired Dozers	3	0.5	8	1.5
Total acres disturbed per day during Site Preparation					3.5
Grading	Crawler Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1	8	2
Total acres disturbed per day during Grading					4

Source: CalEEMod, User Manual Appendix A.

RECEPTORS

As previously stated, LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable NAAQS and CAAQS at the nearest residence or sensitive receptor. Receptor locations are off-site locations where individuals may be exposed to emissions from Project activities.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as "sensitive receptors". These structures typically include uses such as residences, hotels, and hospitals where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site has been used to determine construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$, since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time[5].

LSTs apply, even for non-sensitive land uses, consistent with *LST Methodology* and SCAQMD guidance. Per the *LST Methodology*, commercial, educational, and industrial facilities are not included in the definition of sensitive receptor because employees and patrons do not typically remain onsite for a full 24 hours but are typically onsite for 8 hours or less. However, *LST Methodology* explicitly states that "*LSTs based on shorter averaging periods, such as the NO_2 and*

[5] It should be noted that a school use is not included in SCAQMD's specific definition of sensisitve land uses for LST purposes, since the LST definition includes locations where an individual has a likelihood to remain for 24-hours per day. School receptors are considered for localized emissions of NO_2 and CO – which have averaging times of 1 and 8-hours as noted above.

CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours (43)." Therefore, any adjacent land use where an individual could remain for 1 or 8-hours, that is located at a closer distance to the Project site than the receptor used for PM_{10} and $PM_{2.5}$ analysis, must be considered to determine construction and operational LST air impacts for emissions of NO_2 and CO since these pollutants have an averaging time of 1 and 8-hours.

RECEPTORS

Receptors relative to the Project area are described below and shown on Exhibit 3-A. Localized air quality impacts were evaluated at receptor land uses nearest the Project site.

R1: Location R1 represents the existing residence at 4063 N Webster Avenue, approximately 94 feet east of the Project site. Receptor R1 is placed at the outdoor living areas (backyards) facing the Project site.

R2: Location R2 represents the existing residence at 4063 N Webster, approximately 469 feet east of the Project site. Receptor R2 is placed at the outdoor living areas (backyards) facing the Project site.

R3: Location R3 represents the existing residence at 3832 Brennan Avenue approximately 1,405 feet southeast of the Project site. Receptor R3 is placed at the outdoor living areas (backyards) facing the Project site.

R4: Location R4 represents the property line of the Val Verde Regional Learning Center athletic field at 3710 Webster Avenue, approximately 1,884 feet south of the Project site. Receptor R4 is placed at the building façade.

R5: Location R5 represents Val Verde High School at 972 Morgan Street, approximately 1,900 feet south of the Project site. Receptor R5 is placed at the building façade.

R6: Location R6 represents the Chevron at 796 Ramona Expressway, approximately 72 feet east of the Project site. Receptor R6 is placed at the building façade.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual a cumulatively significant impact. The nearest land use where an individual could remain for 24 hours to the Project site has been used to determine localized construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$ (since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time). The nearest receptor used for evaluation of localized impacts of PM_{10} and $PM_{2.5}$ is represented by location R1, which represents the existing residence at 4063 North Webster Avenue, approximately 94 feet (29 meters) northeast of the Project site. As such, for evaluation of localized PM_{10} and $PM_{2.5}$, a 29-meter distance will be used.

As previously stated, and consistent with *LST Methodology*, the nearest commercial, educational, or industrial use to the Project site is used to determine construction and operational LST air impacts for emissions of NO_X and CO as the averaging periods for these pollutants are shorter (8 hours or less) and it is reasonable to assumed that an individual could be present at these sites for periods of one to 8 hours. The nearest receptor used for evaluation of localized impacts of NO_X and CO is represented by location R6, which represents the Chevron located at 796 Ramona Expressway, approximately 72 feet (22 meters) east of the Project site.

It should be noted that the *LST Methodology* explicitly states that "*It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters* (45)." As such a 25-meter receptor distance will be used for evaluation of localized NO_X and CO.

EXHIBIT 3-A: SENSITIVE RECEPTOR LOCATIONS

N

LEGEND:

Site Boundary | Receptor Locations | Distance from receptor to Project site boundary (in feet)

3.7 CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS

3.7.1 LOCALIZED THRESHOLDS FOR CONSTRUCTION ACTIVITY

Since the total acreage disturbed is less than five acres per day for site preparation and grading activities, the SCAQMD's screening look-up tables were utilized to determine impacts for phases. It should be noted that since the look-up tables identify thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized to determine localized significance thresholds. Consistent with SCAQMD guidance, the thresholds presented in Table 3-8 were calculated by interpolating the threshold values for the Project's disturbed acreage.

TABLE 3-8: MAXIMUM DAILY LOCALIZED CONSTRUCTION EMISSIONS THRESHOLDS

Construction Localized Thresholds				
Construction Phase	**NO_X**	**CO**	**PM_{10}**	**PM_{10}**
Site Preparation	220 lbs/day	1,230 lbs/day	13 lbs/day	6 lbs/day
Grading	237 lbs/day	1,346 lbs/day	14 lbs/day	7 lbs/day

Source: Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008

3.7.2 CONSTRUCTION-SOURCE LOCALIZED EMISSIONS

IMPACTS WITHOUT MITIGATION

Table 3-9 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. For analytical purposes, emissions associated with peak site preparation and grading activities are considered for purposes of LSTs since these phases represent the maximum localized emissions that would occur. Any other construction phases of development that overlap would result in lesser emissions and consequently lesser impacts than what is disclosed herein. Without mitigation, localized construction emissions would not exceed the applicable SCAQMD LSTs for emissions of any criteria pollutant. Outputs from the model runs for unmitigated construction LSTs are provided in Appendix 3.1.

Table 3-9 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Without mitigation, localized construction emissions would not exceed the applicable SCAQMD LSTs for emissions of any criterial pollutant. Outputs from the model runs for unmitigated construction LSTs are provided in Appendix 3.1.

TABLE 3-9: LOCALIZED CONSTRUCTION-SOURCE EMISSIONS – WITHOUT MITIGATION

Construction Activity	Year	Emissions (lbs/day)			
		NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	**Maximum Daily Emissions**	**14.73**	**28.31**	**5.76**	**2.79**
	SCAQMD Localized Threshold	220	1,230	13	6
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Construction Activity	Year	Emissions (lbs/day)			
		NO_X	CO	PM_{10}	$PM_{2.5}$
Grading	**Maximum Daily Emissions**	**19.43**	**35.35**	**2.85**	**1.16**
	SCAQMD Localized Threshold	237	1,346	14	7
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod unmitigated localized construction-source emissions are presented in Appendix 3.1.

3.8 OPERATIONAL-SOURCE EMISSIONS LST ANALYSIS

As previously stated, the total development is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use on 20.24 acres. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed. Notwithstanding, for informational purposes, as shown on Table 3-11 operational emissions would not exceed the LST thresholds for the nearest sensitive receptor. It should be noted that the average on-site distance is approximately 0.07 miles and has been modeled accordingly for purposes of LSTs. Therefore, the Project would have a less than significant localized impact during operational activity.

3.8.1 LOCALIZED THRESHOLDS FOR OPERATIONAL ACTIVITY

As previously stated, LSTs for a 5-acre site during operations are used as a screening tool to determine if further detailed analysis is required.

TABLE 3-10: MAXIMUM DAILY LOCALIZED OPERATIONAL EMISSIONS THRESHOLDS

Operational Localized Thresholds			
NO_X	CO	PM_{10}	$PM_{2.5}$
270 lbs/day	1,577 lbs/day	5 lbs/day	2 lbs/day

Source: Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008

3.8.2 OPERATIONAL-SOURCE LOCALIZED EMISSIONS

IMPACTS WITHOUT MITIGATION

As shown on Table 3-11 operational emissions would not exceed the LST thresholds for the nearest sensitive receptor. Therefore, the Project would have a less than significant localized impact during operational activity. Outputs from the model runs for operation LSTs are provided in Appendix 3.3.

TABLE 3-11: LOCALIZED SIGNIFICANCE SUMMARY OF OPERATIONS – WITHOUT MITIGATION

On-Site Emissions	Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**16.84**	**113.17**	**1.05**	**0.41**
SCAQMD Localized Threshold	270	1,577	5	2
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod localized operational-source emissions are presented in Appendix 3.3.

3.9 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods[6]. This "hot spot" analysis did not predict any exceedance of the 1-hour (20.0 ppm) or 8-hour (9.0 ppm) CO standards, as shown on Table 3-12.

TABLE 3-12: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations
Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (*1992 CO Plan*), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, of the 8.4 ppm 8-hr CO

[6] The CO "hot spot" analysis conducted in 2003 is the most current study used for CO "hot spot" analysis in the SCAB.

concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (i.e., the highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (46). In contrast, an adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

The ambient 1-hr and 8-hr CO concentration within the Project study area is estimated to be 0.9 ppm and 0.8 ppm, respectively (data from Lake Elsinore station for 2021). Therefore, even if the traffic volumes for the proposed Project were ten times the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, due to the on-going improvements in ambient air quality and vehicular emissions controls, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections. As noted above, only 0.7 ppm were attributable to the traffic volumes and congestion at one of the busiest intersections in the SCAB. Therefore if these traffic volumes were multiplied by ten times, it could be expected that the CO attributable to traffic would increase tenfold as well, resulting in 7 ppm – even if this were added to either the 1-hour or 8-hour CO concentrations within the Project study area, this would result in 9.0 ppm and 8.6 ppm for the 1-hr and 8-hr timeframes, respectively. Neither of which would exceed the applicable 1-hr standard of 20 ppm or the 8-hr standard of 9 ppm.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (47). Traffic volumes generating the CO concentrations for the "hot spot" analysis is shown on Table 3-13. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which had AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (46).

TABLE 3-13: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

As shown in Table 3-14, the highest trips on a segment of road for the proposed Project during AM traffic is 5,838 vph, respectively on Perris Bl. and Ramona Exwy. The highest trips on a segment of road for the proposed Project during PM traffic is 6,328 vph, respectively on Evans

Rd. and Ramona Exwy. (48). As such, Project-related traffic volumes are less than the traffic volumes identified in the 2003 AQMP. The Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-14: EAPC TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
I-215 NB Ramps & Ramona Exwy.	1,434/1,179	0/0	1,921/2,232	2,188/2,394	5,543/5,806
Perris Bl. & Ramona Exwy.	1,039/1,015	1,140/1,591	1,889/2,204	1,770/1,803	5,838/6,612
Redlands Av. & Ramona Exwy.	477/400	433/660	1,671/2,380	2,527/2,177	5,109/5,616
Evans Rd. & Ramona Exwy.	1,009/568	1,024/1,446	1,752/2,559	1,956/1,755	5,741/6,328

3.10 AQMP

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In December 2022, the SCAQMD released the *Final 2022 AQMP* (*2022 AQMP*). The *2022 AQMP* continues to evaluate current integrated strategies and control measures to meet the CAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (49). Similar to the 2016 AQMP, the *2022 AQMP* incorporates scientific and technological information and planning assumptions, including the *2020-2045 RTP/SCS*, a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements

(50). The Project's consistency with the AQMP will be determined using the *2022 AQMP* as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the *1993 CEQA Handbook* (51). These indicators are discussed below:

3.10.1 CONSISTENCY CRITERION NO. 1

The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. As discussed previously, LSTs have been developed to determine whether a there is potential for a project to cause localized exceedances of the CAAQS or NAAQS, which would occur if localized significance thresholds were exceeded.

Construction Impacts – Consistency Criterion 1

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized or regional significance thresholds were exceeded. As evaluated, the Project's localized construction-source emissions would not exceed applicable LST thresholds. As such, a less than significant impact is expected.

Operational Impacts – Consistency Criterion 1

As evaluated, the Project's localized operational-source emissions would not exceed applicable LST thresholds. As such, a less than significant impact is expected.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

3.10.2 CONSISTENCY CRITERION NO. 2

The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The *2022 AQMP* demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Perris General Plan is considered to be consistent with the AQMP***.***

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance.

Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

Operational Impacts – Consistency Criterion 2

Pursuant to the PVCCSP, the Project site is designated for Commercial uses. The Commercial designation provides for retail, professional office, and service-oriented business activities which serve the entire City, as well as the surrounding neighborhoods. This zone combines the General Plan Land Use designation of Community Commercial and Commercial Neighborhood (52).

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use, which is consistent with the City's designation and intensity and therefore would not conflict with the goals and objectives of the AQMP.

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP CONSISTENCY CONCLUSION

The Project would not be consistent with AQMP Criterion No. 1 and Criterion No. 2. As such, a less than significant impact would result.

3.11 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Additionally, the Project will not exceed the SCAQMD localized significance thresholds during operational activity. Further Project traffic would not create or result in a CO "hotspot." Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations.

3.11.1 FRIANT RANCH CASE

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an EIR air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided.

As discussed in briefs filed in the Friant Ranch case, correlating a project's criteria air pollutant emissions to specific health impacts is challenging. The SCAQMD, which has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies

should correlate air quality impacts with specific health outcomes (53) noted that it may be "difficult to quantify health impacts for criteria pollutants." SCAQMD used O_3 as an example of why it is impracticable to determine specific health outcomes from criteria pollutants for all but very large, regional-scale projects. First, forming O_3 "takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources." (SCAQMD, 2015a, p. 11) Second, "it takes a large amount of additional precursor emissions (NO_X and VOCs) to cause a modeled increase in ambient ozone levels over an entire region," with a 2012 study showing that "reducing NO_X by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion." (SCAQMD, 2015a, pp. 12-14)

SCAQMD concluded that it "does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects." (SCAQMD, 2015a, pp. 12-14) The San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) ties the difficulty of correlating the emission of criteria pollutants to health impacts to how ozone and particulate matter are formed, stating that "[b]ecause of the complexity of ozone formation, a specific tonnage amount of NO_X or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area." (SJVUAPCD, 2015, p. 4) Similarly, the tonnage of PM "emitted does not always equate to the local PM concentration because it can be transported long distances by wind," and "[s]econdary PM, like ozone, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as sulfur dioxides (SO_X) and NO_X," meaning that "the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area." (SJVUAPCD, 2015, p. 5) The disconnect between the amount of precursor pollutants and the concentration of ozone or PM formed makes it difficult to determine potential health impacts, which are related to the concentration of ozone and particulate matter experienced by the receptor rather than levels of NO_X, SO_X, and VOCs produced by a source.

Most local agencies lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally specific thresholds of significance based on potential health impacts from an individual development project. The use of national or "generic" data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the role of other allergens and genetics in cause asthma), existing scientific tools cannot accurately estimate health impacts of the Project's air emissions without undue speculation. Instead, readers are directed to the Project's air quality impact analysis above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation.

The LST analysis above determined that the Project would not result in emissions exceeding SCAQMD's LSTs. Additionally, it should be noted that the proposed Project is significantly smaller

than the project evaluated in the Friant Ranch case, and consequently would be more difficult to analyze impacts. Therefore, the proposed Project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$.

As the Project's emissions will comply with federal, state, and local air quality standards, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level and would not provide a reliable indicator of health effects if modeled.

3.12 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. While restaurants may result in some odors from the cooking process, these odors are not typically considered objectionable. With respect to operation of the gas station, gas pumping activities are also expected to generate odors associated with gasoline fumes. The gas pumps and underground storage tanks would include CARB-required vapor recovery systems that would control VOC vapor releases during refueling and would minimize driver and employee exposure to gasoline odors and fumes. Thus, gasoline odors are not expected to adversely affect adjacent land uses. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required (54).

3.13 CUMULATIVE IMPACTS

As previously shown in Table 2-3, the CAAQS designate the Project site as nonattainment for O_3 PM_{10}, and $PM_{2.5}$ while the NAAQS designates the Project site as nonattainment for O_3 and $PM_{2.5}$.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (55). In this report the SCAQMD clearly states (Page D-3):

> *"…the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

CONSTRUCTION IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

OPERATIONAL IMPACTS

As substantiated in this analysis, Project-level operational-source VOC, NO_X, CO, and PM_{10} emissions impacts would be significant and unavoidable. It should be noted that because the SCAB is in attainment for CO, Project-level operational CO emissions would not be considered

cumulatively significant. However, per SCAQMD protocols, Project operational-source VOC and NO_X (the precursors of ozone), and PM_{10} emissions impacts would be cumulatively significant.

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5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Perris Gateway. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com

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AEP – Association of Environmental Planners
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Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – CARB • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

Appendix C
Maps and Tables of Area Designations for State and National Ambient Air Quality Standards

Appendix C
Maps and Tables of Area Designations for State and National Ambient Air Quality Standards

This attachment fulfills the requirement of Health and Safety Code section 40718 for CARB to publish maps that identify areas where one or more violations of any State ambient air quality standard (State standard) or national ambient air quality standard (national standard) have been measured. The national standards are those promulgated under section 109 of the federal Clean Air Act (42 U.S.C. § 7409).

This attachment is divided into three parts. The first part comprises a table showing the levels, averaging times, and measurement methods for each of the State and national standards. This is followed by a section containing maps and tables showing the area designations for each pollutant for which there is a State standard in the California Code of Regulations, title 17, section 70200. The last section contains maps and tables showing the most current area designations for the national standards.

Ambient Air Quality Standards

(Updated 5/4/16)

Pollutant	Averaging Time	California Standards [1]		National Standards [1]		
		Concentration [3]	Method [4]	Primary [5,6]	Secondary [5,7]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[8]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency (U.S. EPA) for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$)as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Area Designations for the State Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a State standard set forth in the California Code of Regulations, title 17, section 60200. Each area is identified as attainment, nonattainment, nonattainment-transitional, or unclassified for each pollutant, as shown below:

Attainment	A
Nonattainment	N
Nonattainment-Transitional	NA-T
Unclassified	U

In general, CARB designates areas by air basin for pollutants with a regional impact and by county for pollutants with a more local impact. However, when there are areas within an air basin or county with distinctly different air quality deriving from sources and conditions not affecting the entire air basin or county, CARB may designate a smaller area. Generally, when boundaries of the designated area differ from the air basin or county boundaries, the description of the specific area is referenced at the bottom of the summary table.

Figure 1

2021
Area Designations for State
Ambient Air Quality Standards
OZONE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Shasta
Trinity
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Sutter Buttes
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Lake
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Kings
Tulare
Inyo
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Unclassified
Attainment
Nonattainment-Transitional
Nonattainment
Air Basin
County
Last Updated: October 2021
Air Quality Planning and Science Division, CARB

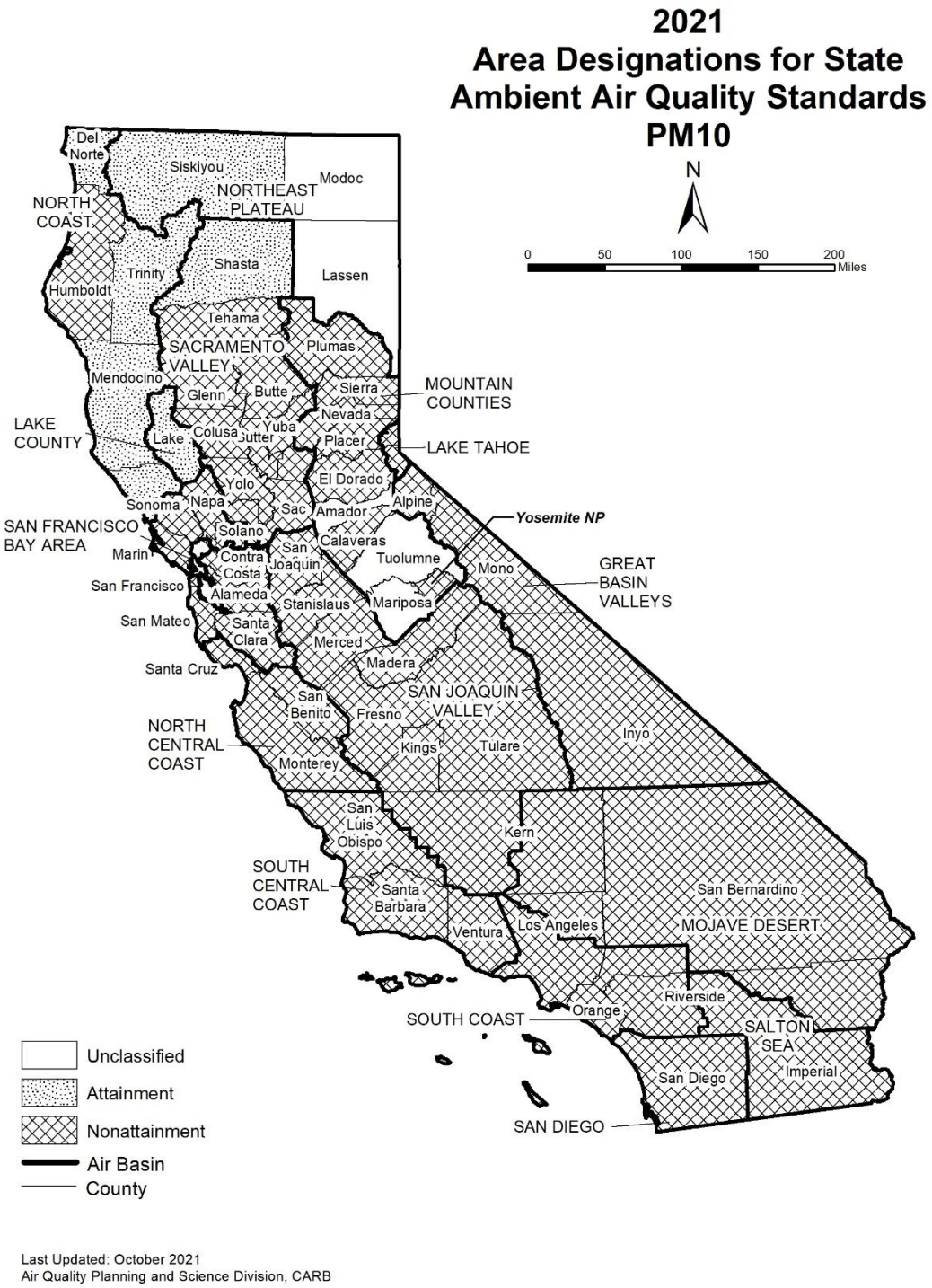
Table 1
California Ambient Air Quality Standards Area Designations for Ozone[1]

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			U	
Inyo County	N			
Mono County	N			
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN				A
MOJAVE DESERT AIR BASIN	N			
MOUNTAIN COUNTIES AIR BASIN				
Amador County		NA-T		
Calaveras County	N			
El Dorado County (portion)	N			
Mariposa County	N			
Nevada County	N			
Placer County (portion)	N			
Plumas County			U	
Sierra County			U	
Tuolumne County	N			
NORTH CENTRAL COAST AIR BASIN				A
NORTH COAST AIR BASIN				A

	N	NA-T	U	A
NORTHEAST PLATEAU AIR BASIN				A
SACRAMENTO VALLEY AIR BASIN				
Colusa and Glenn Counties				A
Shasta County		NA-T		
Sutter/Yuba Counties				
Sutter Buttes	N			
Remainder of Sutter County	N			
Yuba County	N			
Yolo/Solano Counties		NA-T		
Remainder of Air Basin	N			
SALTON SEA AIR BASIN	N			
SAN DIEGO AIR BASIN	N			
SAN FRANCISCO BAY AREA AIR BASIN	N			
SAN JOAQUIN VALLEY AIR BASIN	N			
SOUTH CENTRAL COAST AIR BASIN				
San Luis Obispo County	N			
Santa Barbara County	N			
Ventura County	N			
SOUTH COAST AIR BASIN	N			

[1] AB 3048 (Olberg) and AB 2525 (Miller) signed into law in 1996, made changes to Health and Safety Code, section 40925.5. One of the changes allows nonattainment districts to become nonattainment-transitional for ozone by operation of law.

Figure 2



Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 2
California Ambient Air Quality Standards Area Designation for Suspended Particulate Matter (PM_{10})

	N	U	A
GREAT BASIN VALLEYS AIR BASIN	N		
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN	N		
MOJAVE DESERT AIR BASIN	N		
MOUNTAIN COUNTIES AIR BASIN			
Amador County		U	
Calaveras County	N		
El Dorado County (portion)	N		
Mariposa County			
- Yosemite National Park	N		
- Remainder of County		U	
Nevada County	N		
Placer County (portion)	N		
Plumas County	N		
Sierra County	N		
Tuolumne County		U	

	N	U	A
NORTH CENTRAL COAST AIR BASIN	N		
NORTH COAST AIR BASIN			
Del Norte, Mendocino, Sonoma (portion) and Trinity Counties			A
Remainder of Air Basin	N		
NORTHEAST PLATEAU AIR BASIN			
Siskiyou County			A
Remainder of Air Basin		U	
SACRAMENTO VALLEY AIR BASIN			
Shasta County			A
Remainder of Air Basin	N		
SALTON SEA AIR BASIN	N		
SAN DIEGO AIR BASIN	N		
SAN FRANCISCO BAY AREA AIR BASIN	N		
SAN JOAQUIN VALLEY AIR BASIN	N		
SOUTH CENTRAL COAST AIR BASIN	N		
SOUTH COAST AIR BASIN	N		

Figure 3

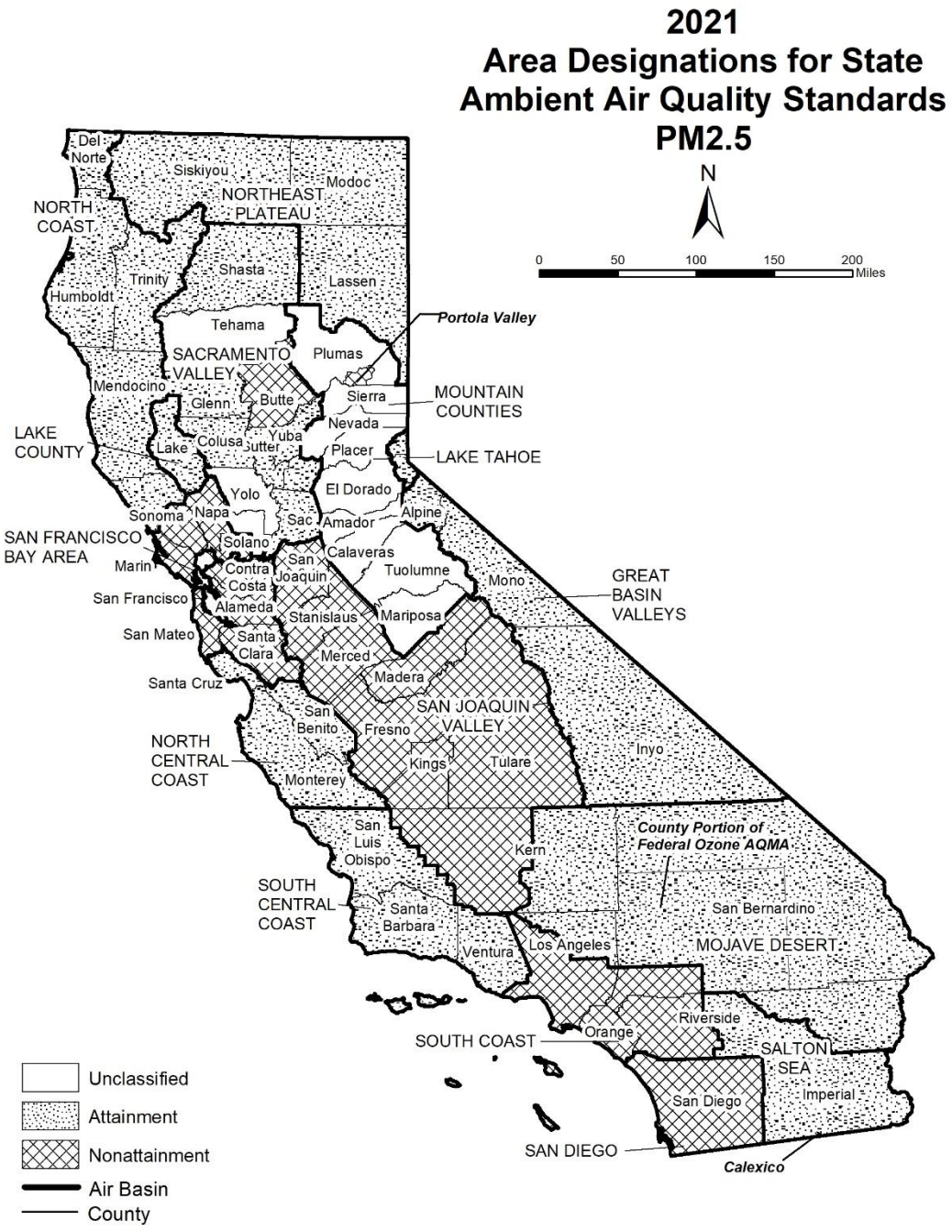

2021
Area Designations for State
Ambient Air Quality Standards
PM2.5
N
0 50 100 150 200
Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Shasta
Trinity
Lassen
Humboldt
Tehama
Portola Valley
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Yuba
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
County Portion of Federal Ozone AQMA
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
Imperial
San Diego
SAN DIEGO
Calexico
Unclassified
Attainment
Nonattainment
Air Basin
County
Last Updated: October 2021
Air Quality Planning and Science Division, CARB

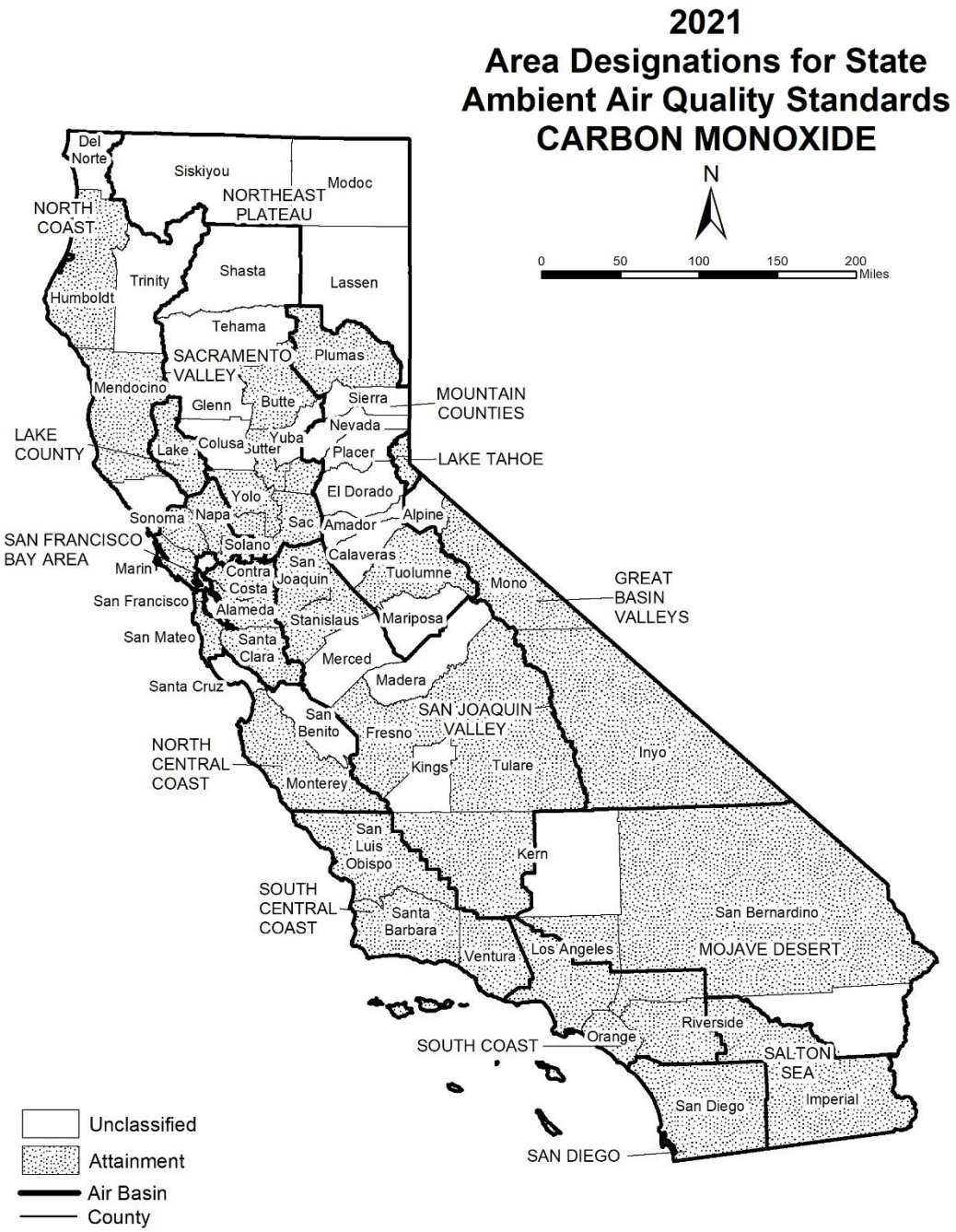
Table 3
California Ambient Air Quality Standards Area Designations for Fine Particulate Matter ($PM_{2.5}$)

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
Plumas County			A
- Portola Valley[1]	N		
Remainder of Air Basin		U	
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A
SACRAMENTO VALLEY AIR BASIN			
Butte County	N		
Colusa County			A
Glenn County			A
Placer County (portion)			A
Sacramento County			A
Shasta County			A
Sutter and Yuba Counties			A
Remainder of Air Basin		U	

	N	U	A
SALTON SEA AIR BASIN			
Imperial County			
- City of Calexico[2]	N		
Remainder of Air Basin			A
SAN DIEGO AIR BASIN	N		
SAN FRANCISCO BAY AREA AIR BASIN	N		
SAN JOAQUIN VALLEY AIR BASIN	N		
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN	N		

[1] California Code of Regulations, title 17, section 60200(c)
[2] California Code of Regulations, title 17, section 60200(a)

Figure 4



Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 4
California Ambient Air Quality Standards Area Designation for Carbon Monoxide*

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			U	
Inyo County				A
Mono County				A
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN				A
MOJAVE DESERT AIR BASIN				
Kern County (portion)			U	
Los Angeles County (portion)				A
Riverside County (portion)			U	
San Bernardino County (portion)				A
MOUNTAIN COUNTIES AIR BASIN				
Amador County			U	
Calaveras County			U	
El Dorado County (portion)			U	
Mariposa County			U	
Nevada County			U	
Placer County (portion)			U	
Plumas County				A
Sierra County			U	
Tuolumne County				A
NORTH CENTRAL COAST AIR BASIN				
Monterey County				A
San Benito County			U	
Santa Cruz County			U	
NORTH COAST AIR BASIN				
Del Norte County			U	
Humboldt County				A
Mendocino County				A
Sonoma County (portion)			U	
Trinity County			U	
NORTHEAST PLATEAU AIR BASIN			U	

	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN				
Butte County				A
Colusa County			U	
Glenn County			U	
Placer County (portion)				A
Sacramento County				A
Shasta County			U	
Solano County (portion)				A
Sutter County				A
Tehama County			U	
Yolo County				A
Yuba County			U	
SALTON SEA AIR BASIN				A
SAN DIEGO AIR BASIN				A
SAN FRANCISCO BAY AREA AIR BASIN				A
SAN JOAQUIN VALLEY AIR BASIN				
Fresno County				A
Kern County (portion)				A
Kings County			U	
Madera County			U	
Merced County			U	
San Joaquin County				A
Stanislaus County				A
Tulare County				A
SOUTH CENTRAL COAST AIR BASIN				A
SOUTH COAST AIR BASIN				A

* The area designated for carbon monoxide is a county or portion of a county

Figure 5

2021
Area Designations for State
Ambient Air Quality Standards
NITROGEN DIOXIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Marin
Contra Costa
San Joaquin
Calaveras
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Kings
Tulare
Inyo
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
CA 60 (Portion)
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Calexico
Los Angeles
San Bernardino
CA 60 (Portion)
Riverside
Orange
Attainment
Nonattainment
Air Basin
County
Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 5
California Ambient Air Quality Standards Area Designations for Nitrogen Dioxide

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A

	N	U	A
SACRAMENTO VALLEY AIR BASIN			A
SALTON SEA AIR BASIN			A
SAN DIEGO AIR BASIN			A
SAN FRANCISCO BAY AREA AIR BASIN			A
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN			
CA 60 Near-road Portion of San Bernardino, Riverside, and Los Angeles Counties			A
Remainder of Air Basin			A

Figure 6

Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 6
California Ambient Air Quality Standards Area Designation for Sulfur Dioxide*

	N	A
GREAT BASIN VALLEYS AIR BASIN		A
LAKE COUNTY AIR BASIN		A
LAKE TAHOE AIR BASIN		A
MOJAVE DESERT AIR BASIN		A
MOUNTAIN COUNTIES AIR BASIN		A
NORTH CENTRAL COAST AIR BASIN		A
NORTH COAST AIR BASIN		A
NORTHEAST PLATEAU AIR BASIN		A

	N	A
SACRAMENTO VALLEY AIR BASIN		A
SALTON SEA AIR BASIN		A
SAN DIEGO AIR BASIN		A
SAN FRANCISCO BAY AREA AIR BASIN		A
SAN JOAQUIN VALLEY AIR BASIN		A
SOUTH CENTRAL COAST AIR BASIN		A
SOUTH COAST AIR BASIN		A

* The area designated for sulfur dioxide is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

Figure 7

Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 7
California Ambient Air Quality Standards Area Designation for Sulfates

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A

	N	U	A
SACRAMENTO VALLEY AIR BASIN			A
SALTON SEA AIR BASIN			A
SAN DIEGO AIR BASIN			A
SAN FRANCISCO BAY AREA AIR BASIN			A
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN			A

Figure 8

Last Updated: October 2021
Air Quality Planning and Science Division, CARB

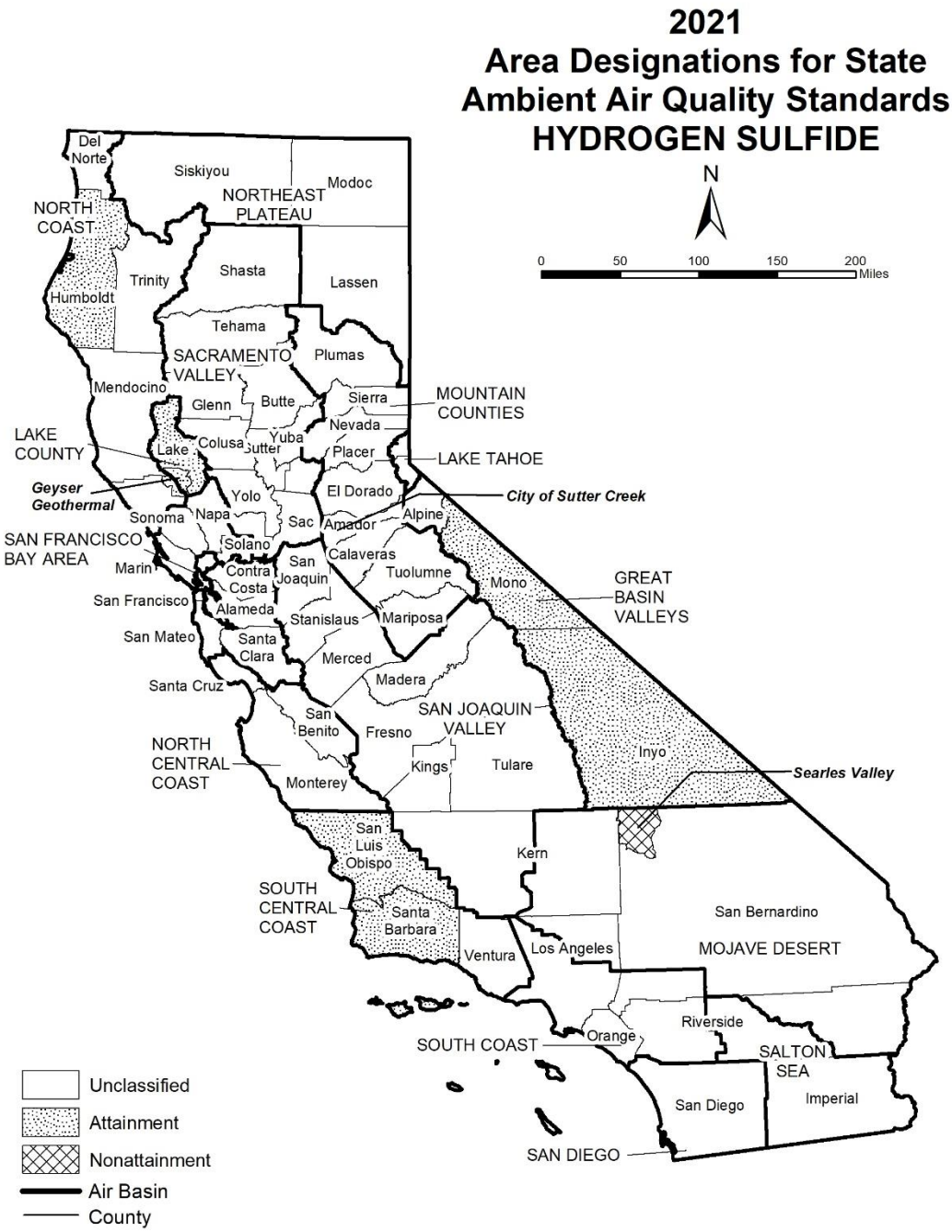
Table 8
California Ambient Air Quality Standards Area Designations for Lead (particulate)*

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			A
LAKE COUNTY AIR BASIN			A
LAKE TAHOE AIR BASIN			A
MOJAVE DESERT AIR BASIN			A
MOUNTAIN COUNTIES AIR BASIN			A
NORTH CENTRAL COAST AIR BASIN			A
NORTH COAST AIR BASIN			A
NORTHEAST PLATEAU AIR BASIN			A
SACRAMENTO VALLEY AIR BASIN			A

	N	U	A
SALTON SEA AIR BASIN			A
SAN DIEGO AIR BASIN			A
SAN FRANCISCO BAY AREA AIR BASIN			A
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN			A
SOUTH COAST AIR BASIN			A

* The area designated for lead is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

Figure 9



Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 9
California Ambient Air Quality Standards Area Designation for Hydrogen Sulfide*

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			U	
Inyo County				A
Mono County				A
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN			U	
MOJAVE DESERT AIR BASIN				
Kern County (portion)			U	
Los Angeles County (portion)			U	
Riverside County (portion)			U	
San Bernardino County (portion)				
- Searles Valley Planning Area[1]	N			
- Remainder of County			U	
MOUNTAIN COUNTIES AIR BASIN				
Amador County				
- City of Sutter Creek	N			
- Remainder of County			U	
Calaveras County			U	
El Dorado County (portion)			U	
Mariposa County			U	
Nevada County			U	
Placer County (portion)			U	
Plumas County			U	
Sierra County			U	
Tuolumne County			U	

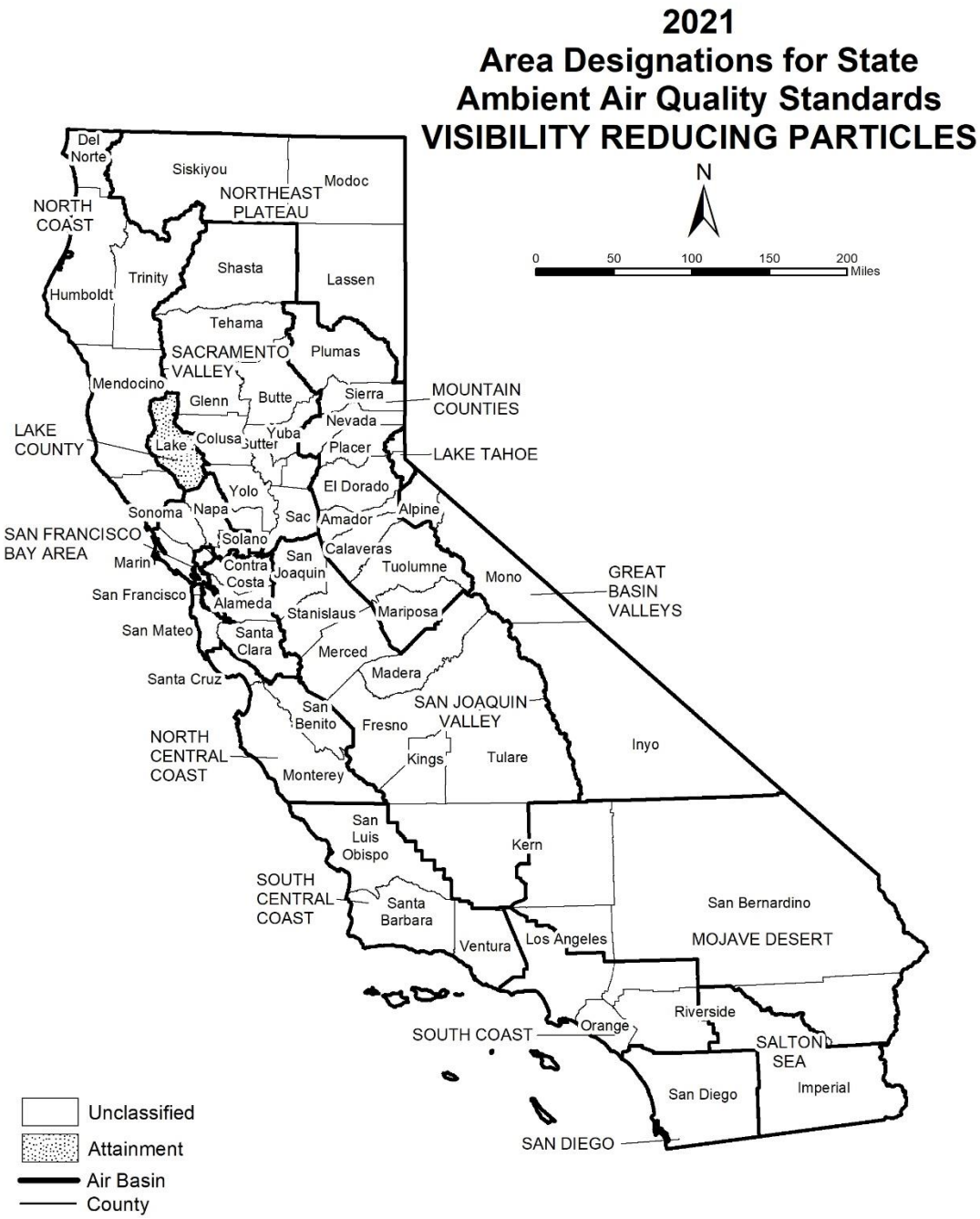
	N	NA-T	U	A
NORTH CENTRAL COAST AIR BASIN			U	
NORTH COAST AIR BASIN				
Del Norte County			U	
Humboldt County				A
Mendocino County			U	
Sonoma County (portion)				
- Geyser Geothermal Area[2]				A
- Remainder of County			U	
Trinity County			U	
NORTHEAST PLATEAU AIR BASIN			U	
SACRAMENTO VALLEY AIR BASIN			U	
SALTON SEA AIR BASIN			U	
SAN DIEGO AIR BASIN			U	
SAN FRANCISCO BAY AREA AIR BASIN			U	
SAN JOAQUIN VALLEY AIR BASIN			U	
SOUTH CENTRAL COAST AIR BASIN				
San Luis Obispo County				A
Santa Barbara County				A
Ventura County			U	
SOUTH COAST AIR BASIN			U	

* The area designated for hydrogen sulfide is a county or portion of a county

[1] 52 Federal Register 29384 (August 7, 1987)

[2] California Code of Regulations, title 17, section 60200(d)

Figure 10



Last Updated: October 2021
Air Quality Planning and Science Division, CARB

Table 10
California Ambient Air Quality Standards Area Designation for Visibility Reducing Particles

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN			U	
LAKE COUNTY AIR BASIN				A
LAKE TAHOE AIR BASIN			U	
MOJAVE DESERT AIR BASIN			U	
MOUNTAIN COUNTIES AIR BASIN			U	
NORTH CENTRAL COAST AIR BASIN			U	
NORTH COAST AIR BASIN			U	
NORTHEAST PLATEAU AIR BASIN			U	

	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN			U	
SALTON SEA AIR BASIN			U	
SAN DIEGO AIR BASIN			U	
SAN FRANCISCO BAY AREA AIR BASIN			U	
SAN JOAQUIN VALLEY AIR BASIN			U	
SOUTH CENTRAL COAST AIR BASIN			U	
SOUTH COAST AIR BASIN			U	

Area Designations for the National Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a national ambient air quality standard. Additional information about the federal area designations is available on the U.S. Environmental Protection Agency (U.S. EPA) website:

https://www.epa.gov/green-book

Over the last several years, U.S. EPA has been reviewing the levels of the various national standards. The agency has already promulgated new standard levels for some pollutants and is considering revising the levels for others. Information about the status of these reviews is available on the U.S. EPA website:

https://www.epa.gov/criteria-air-pollutants

Designation Categories

Suspended Particulate Matter (PM_{10}). The U.S. EPA uses three categories to designate areas with respect to PM_{10}:

- Attainment (A)
- Nonattainment (N)
- Unclassifiable (U)

Ozone, Fine Suspended Particulate Matter ($PM_{2.5}$), Carbon Monoxide (CO), and Nitrogen Dioxide (NO_2). The U.S. EPA uses two categories to designate areas with respect to these standards:

- Nonattainment (N)
- Unclassifiable/Attainment (U/A)

The national 1-hour ozone standard was revoked effective June 15, 2005, and the area designations map reflects the 2015 national 8-hour ozone standard of 0.070 ppm. Area designations were finalized on August 3, 2018.

On December 14, 2012, the U.S. EPA established a new national annual primary $PM_{2.5}$ standard of 12.0 μg/m^3. Area designations were finalized in December 2014. The current designation map reflects the most recently revised (2012) annual average standard of 12.0 μg/m^3 as well as the 24-hour standard of 35 μg/m^3, revised in 2006.

On January 22, 2010, the U.S. EPA established a new national 1-hour NO_2 standard of 100 parts per billion (ppb) and retained the annual average standard of 53 ppb. Designations for the primary NO_2 standard became effective on February 29, 2012. All areas of California meet this standard.

Sulfur Dioxide (SO_2). The U.S. EPA uses three categories to designate areas with respect to the 24-hour and annual average sulfur dioxide standards. These designation categories are:

- Nonattainment (N),
- Unclassifiable (U), and
- Unclassifiable/Attainment (U/A).

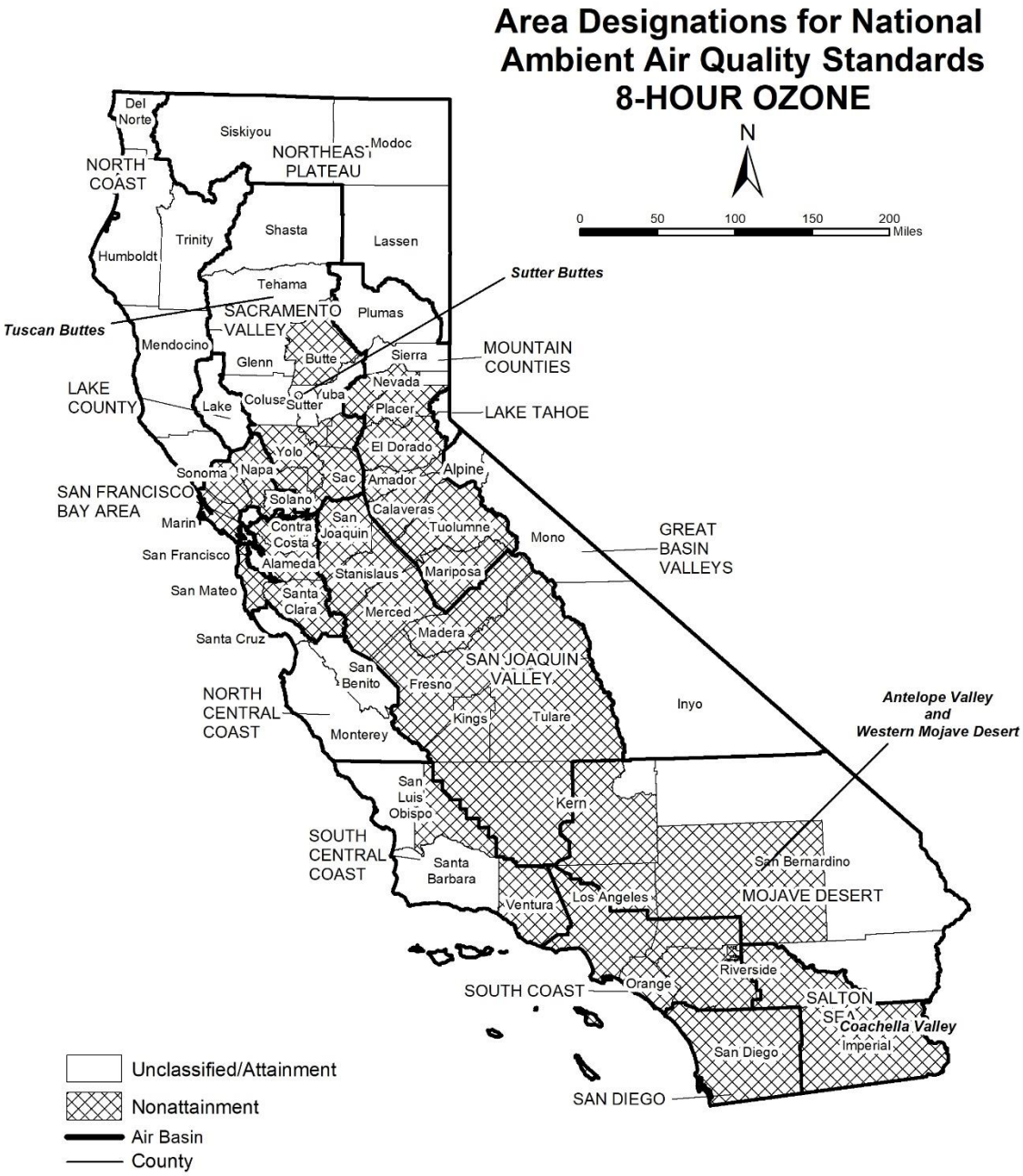
On June 2, 2010, the U.S. EPA established a new primary 1-hour SO_2 standard of 75 parts per billion (ppb). At the same time, U.S. EPA revoked the 24-hour and annual average standards. Area designations for the 1-hour SO_2 standard were finalized on December 21, 2017 and are reflected in the area designations map.

Lead (particulate). The U.S. EPA promulgated a new rolling 3-month average lead standard in October 2008 of 0.15 $\mu g/m^3$. Designations were made for this standard in November 2010.

Designation Areas

From time to time, the boundaries of the California air basins have been changed to facilitate the planning process. CARB generally initiates these changes, and they are not always reflected in the U.S. EPA's area designations. For purposes of consistency, the maps in this attachment reflect area designation boundaries and nomenclature as promulgated by the U.S. EPA. In some cases, these may not be the same as those adopted by CARB. For example, the national area designations reflect the former Southeast Desert Air Basin. In accordance with Health and Safety Code section 39606.1, CARB redefined this area in 1996 to be the Mojave Desert Air Basin and Salton Sea Air Basin. The definitions and boundaries for all areas designated for the national standards can be found in Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 81.305. They are available on the web at: *https://ecfr.io/Title-40/se40.20.81_1305*

Figure 11



Last Updated: October 2021
Map reflects the 2015 8-hour ozone standard of 0.070 ppm
Air Quality Planning and Science Division, CARB

Table 11
National Ambient Air Quality Standards Area Designations for 8-Hour Ozone*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		
Amador County	N	
Calaveras County	N	
El Dorado County (portion)[1]	N	
Mariposa County	N	
Nevada County		
- Western Nevada County	N	
- Remainder of County		U/A
Placer County (portion)[1]	N	
Plumas County		U/A
Sierra County		U/A
Tuolumne County	N	
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		
Butte County	N	
Colusa County		U/A
Glenn County		U/A
Sacramento Metro Area[1]	N	
Shasta County		U/A
Sutter County		
- Sutter Buttes	N	
- Southern portion of Sutter County[1]	N	
- Remainder of Sutter County		U/A
Tehama County		
- Tuscan Buttes	N	
- Remainder of Tehama County		U/A

	N	U/A
SACRAMENTO VALLEY AIR BASIN (cont.)		
Yolo County[1]	N	
Yuba County		U/A
SAN DIEGO COUNTY	N	
SAN FRANCISCO BAY AREA AIR BASIN	N	
SAN JOAQUIN VALLEY AIR BASIN	N	
SOUTH CENTRAL COAST AIR BASIN[2]		
San Luis Obispo County		
- Eastern San Luis Obispo County	N	
- Remainder of County		U/A
Santa Barbara County		U/A
Ventura County		
- Area excluding Anacapa and San Nicolas Islands	N	
- Channel Islands[2]		U/A
SOUTH COAST AIR BASIN[2]	N	
SOUTHEAST DESERT AIR BASIN		
Kern County (portion)	N	
- Indian Wells Valley		U/A
Imperial County	N	
Los Angeles County (portion)	N	
Riverside County (portion)		
- Coachella Valley	N	
- Non-AQMA portion		U/A
San Bernardino County		
- Western portion (AQMA)	N	
- Eastern portion (non-AQMA)		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
NOTE: This map and Table reflect the 2015 8-hour ozone standard of 0.070 ppm.

[1] For this purpose, the Sacramento Metro Area comprises all of Sacramento and Yolo Counties, the Sacramento Valley Air Basin portion of Solano County, the southern portion of Sutter County, and the Sacramento Valley and Mountain Counties Air Basins portions of Placer and El Dorado counties.

[2] South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.
South Coast Air Basin:
Los Angeles County includes San Clemente and Santa Catalina Islands.

Figure 12

Source Date:
October 2021
Air Quality Planning and Science Division

Table 12
National Ambient Air Quality Standards Area Designations for Suspended Particulate Matter (PM_{10})*

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			
Alpine County		U	
Inyo County			
- Owens Valley Planning Area	N		
- Coso Junction			A
- Remainder of County		U	
Mono County			
- Mammoth Lake Planning Area			A
- Mono Lake Basin	N		
- Remainder of County		U	
LAKE COUNTY AIR BASIN		U	
LAKE TAHOE AIR BASIN		U	
MOUNTAIN COUNTIES AIR BASIN		U	
NORTH CENTRAL COAST AIR BASIN		U	
NORTH COAST AIR BASIN		U	
NORTHEAST PLATEAU AIR BASIN		U	
SACRAMENTO VALLEY AIR BASIN			
Sacramento County[1]			A
Remainder of Air Basin		U	
SAN DIEGO COUNTY		U	

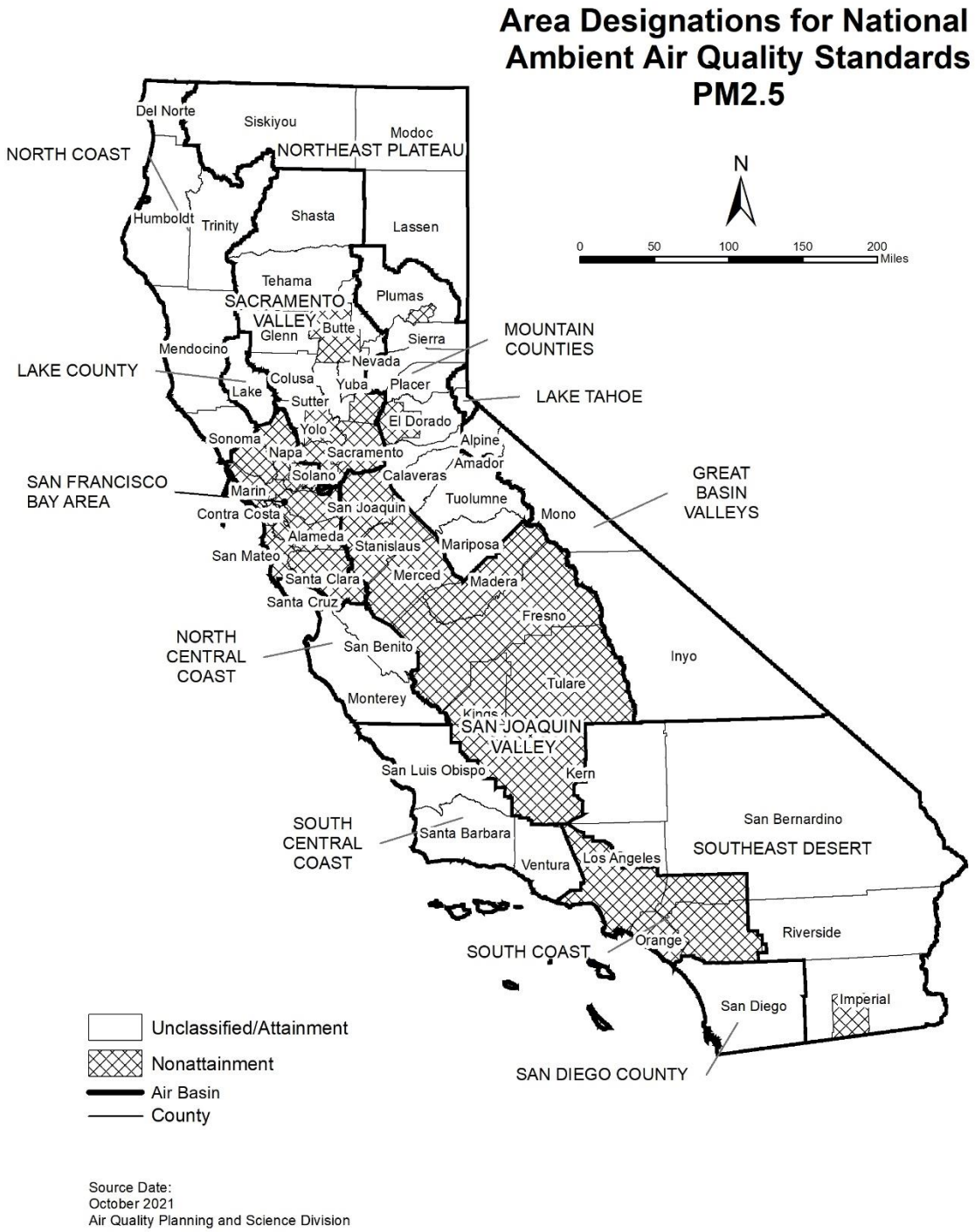
	N	U	A
SAN FRANCISCO BAY AREA AIR BASIN		U	
SAN JOAQUIN VALLEY AIR BASIN			A
SOUTH CENTRAL COAST AIR BASIN		U	
SOUTH COAST AIR BASIN			A
SOUTHEAST DESERT AIR BASIN			
Eastern Kern County			
- Indian Wells Valley			A
- Portion within San Joaquin Valley Planning Area	N		
- Remainder of County		U	
Imperial County			
- Imperial Valley Planning Area[2]			A
- Remainder of County		U	
Los Angeles County (portion)		U	
Riverside County (portion)			
- Coachella Valley	N		
- Non-AQMA portion		U	
San Bernardino County			
- Trona	N		
- Remainder of County	N		

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

[1] Air quality in Sacramento County meets the national PM_{10} standards. The request for redesignation to attainment was approved by U.S. EPA in September 2013.

[2] The request for redesignation to attainment for the Imperial Valley Planning Area was approved by U.S. EPA in September 2020, effective October 2020.

Figure 13



Source Date:
October 2021
Air Quality Planning and Science Division

Table 13
National Ambient Air Quality Standards Area Designations for Fine Particulate Matter ($PM_{2.5}$)

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		
Plumas County		
- Portola Valley Portion of Plumas	N	
- Remainder of Plumas County		U/A
Remainder of Air Basin		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		
Sacramento Metro Area[1]	N	
Remainder of Air Basin		U/A

	N	U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN[2]	N	
SAN JOAQUIN VALLEY AIR BASIN	N	
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN[3]	N	
SOUTHEAST DESERT AIR BASIN		
Imperial County (portion)[4]	N	
Remainder of Air Basin		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305. This map reflects the 2006 24-hour $PM_{2.5}$ standard as well as the 1997 and 2012 $PM_{2.5}$ annual standards.

[1] For this purpose, Sacramento Metro Area comprises all of Sacramento and portions of El Dorado, Placer, Solano, and Yolo Counties. Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

[2] Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

[3] Those lands of the Santa Rosa Band of Cahulla Mission Indians in Riverside County are designated Unclassifiable/Attainment.

[4] That portion of Imperial County encompassing the urban and surrounding areas of Brawley, Calexico, El Centro, Heber, Holtville, Imperial, Seeley, and Westmorland. Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

Figure 14

Source Date:
October 2021
Air Quality Planning and Science Division

Table 14
National Ambient Air Quality Standards Area Designations for Carbon Monoxide*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A

	N	U/A
SACRAMENTO VALLEY AIR BASIN		U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN		U/A
SOUTHEAST DESERT AIR BASIN		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

Figure 15

Source Date:
October 2021
Air Quality Planning and Science Division

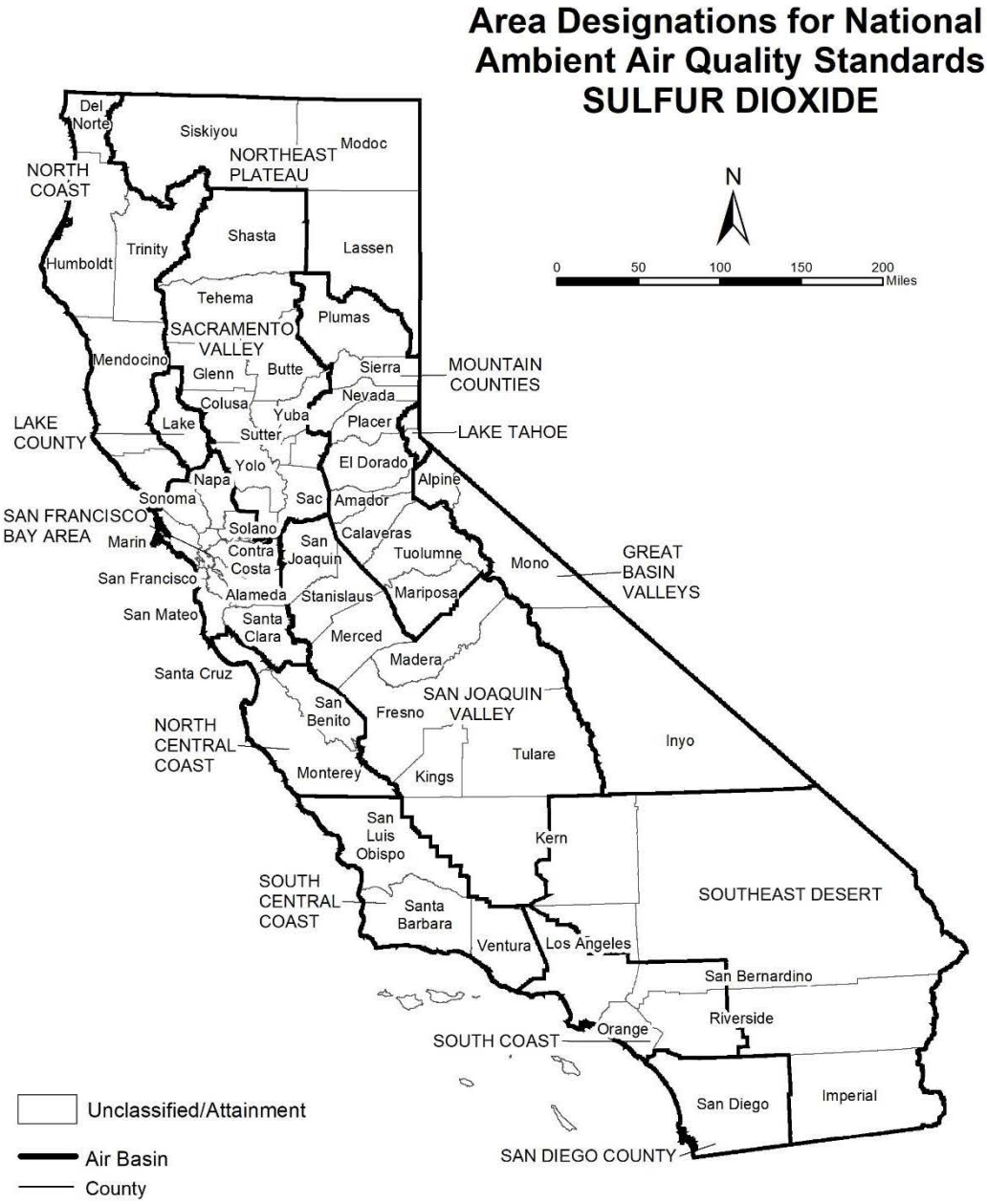
Table 15
National Ambient Air Quality Standards Area Designations for Nitrogen Dioxide*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A

	N	U/A
SACRAMENTO VALLEY AIR BASIN		U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN		U/A
SOUTHEAST DESERT AIR BASIN		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

Figure 16



Source Date:
October 2021
Air Quality Planning and Science Division

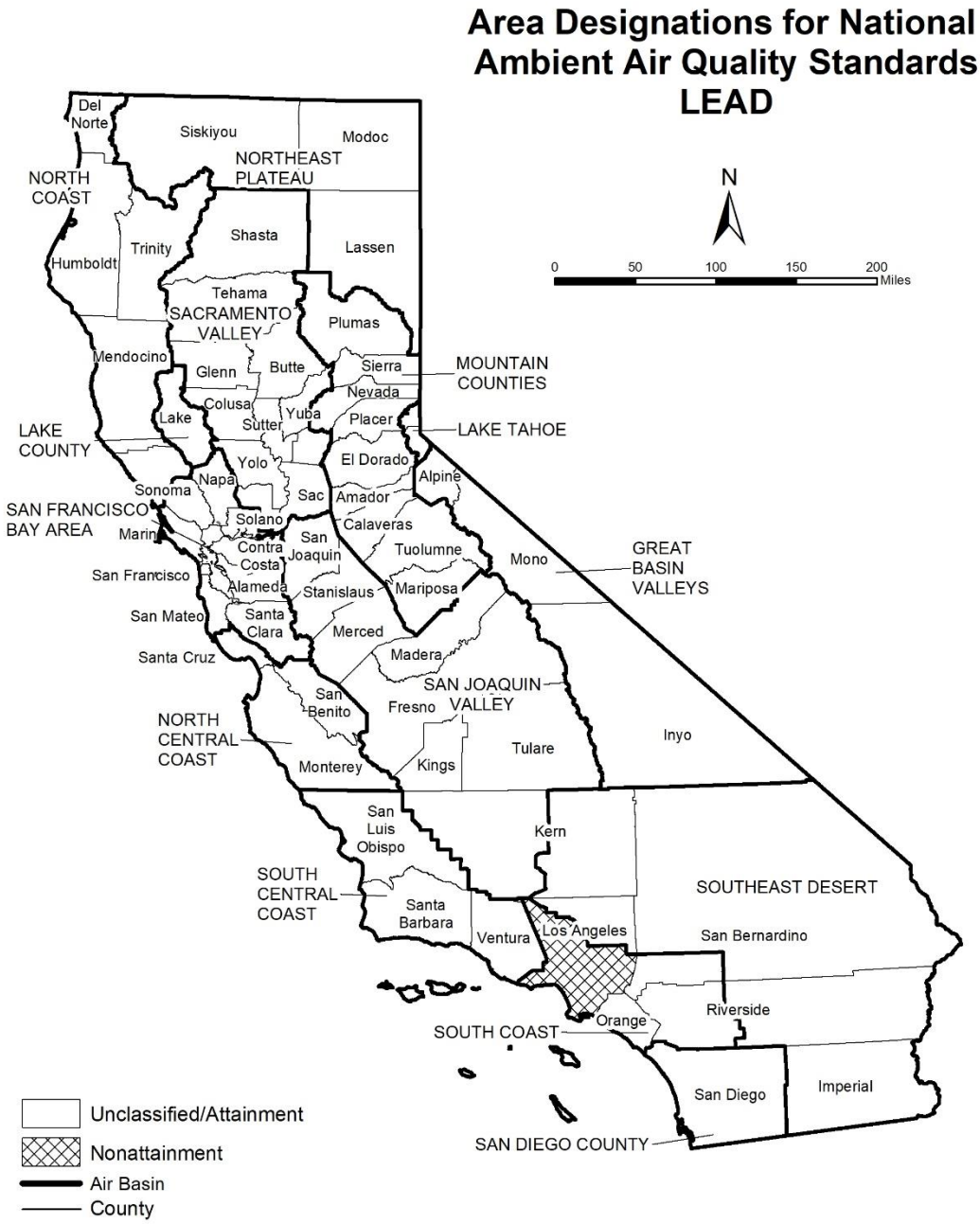
Table 16
National Ambient Air Quality Standards Area Designations for Sulfur Dioxide*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN[1]		U/A
SOUTH COAST AIR BASIN		U/A
SOUTHEAST DESERT AIR BASIN		U/A

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
NOTE: This map and table reflect the 2010 1-hour SO_2 standard of 75 ppb.

[1] South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.
Note that the San Clemente and Santa Catalina Islands are considered part of Los Angeles County, and therefore, are included as part of the South Coast Air Basin.

Figure 17



Source Date:
October 2021
Air Quality Planning and Science Division

Table 17
National Ambient Air Quality Standards Area Designations for Lead (particulate)

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		U/A
LAKE COUNTY AIR BASIN		U/A
LAKE TAHOE AIR BASIN		U/A
MOUNTAIN COUNTIES AIR BASIN		U/A
NORTH CENTRAL COAST AIR BASIN		U/A
NORTH COAST AIR BASIN		U/A
NORTHEAST PLATEAU AIR BASIN		U/A
SACRAMENTO VALLEY AIR BASIN		U/A

	N	U/A
SAN DIEGO COUNTY		U/A
SAN FRANCISCO BAY AREA AIR BASIN		U/A
SAN JOAQUIN VALLEY AIR BASIN		U/A
SOUTH CENTRAL COAST AIR BASIN		U/A
SOUTH COAST AIR BASIN		
Los Angeles County (portion)[1]	N	
Remainder of Air Basin		U/A
SOUTHEAST DESERT AIR BASIN		U/A

[1] Portion of County in Air Basin, not including Channel Islands

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APPENDIX 3.1:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Construction) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Construction)
Construction Start Date	10/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	3.71	19.0	33.3	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,950	5,950	0.23	0.16	5.15	6,008
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	3.71	19.6	36.6	0.06	0.23	5.90	6.00	0.22	2.74	2.84	—	6,924	6,924	0.28	0.16	0.15	6,952
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.49	0.90	8.56	15.3	0.02	0.09	0.64	0.72	0.08	0.19	0.24	—	3,034	3,034	0.12	0.10	1.40	3,068
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.16	1.56	2.80	< 0.005	0.02	0.12	0.13	0.02	0.03	0.04	—	502	502	0.02	0.02	0.23	508

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.65	0.59	10.3	19.8	0.03	0.10	0.84	0.94	0.10	0.20	0.30	—	3,938	3,938	0.15	0.14	4.32	3,986
2026	0.99	3.71	19.0	33.3	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,950	5,950	0.23	0.16	5.15	6,008
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.91	0.90	19.6	36.6	0.06	0.18	5.90	6.00	0.18	2.74	2.84	—	6,924	6,924	0.28	0.14	0.12	6,952
2025	0.99	3.71	19.2	32.2	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,897	5,897	0.23	0.16	0.15	5,951
2026	0.97	3.69	19.1	31.9	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,865	5,865	0.20	0.16	0.13	5,918
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.14	0.14	2.88	5.42	0.01	0.03	0.49	0.52	0.03	0.19	0.21	—	1,038	1,038	0.04	0.02	0.18	1,044
2025	0.49	0.81	8.56	15.3	0.02	0.09	0.64	0.72	0.08	0.15	0.24	—	3,034	3,034	0.12	0.10	1.40	3,068
2026	0.24	0.90	4.64	7.80	0.01	0.05	0.28	0.34	0.05	0.07	0.12	—	1,426	1,426	0.05	0.04	0.54	1,440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.03	0.03	0.53	0.99	< 0.005	< 0.005	0.09	0.09	< 0.005	0.03	0.04	—	172	172	0.01	< 0.005	0.03	173
2025	0.09	0.15	1.56	2.80	< 0.005	0.02	0.12	0.13	0.02	0.03	0.04	—	502	502	0.02	0.02	0.23	508
2026	0.04	0.16	0.85	1.42	< 0.005	0.01	0.05	0.06	0.01	0.01	0.02	—	236	236	0.01	0.01	0.09	238

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,293	5,293	0.21	0.04	—	5,311
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.10	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	231	231	0.01	0.01	0.03	234
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.1	31.1	< 0.005	< 0.005	< 0.005	32.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.42	6.42	< 0.005	< 0.005	0.01	6.51
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.89
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.06	1.06	< 0.005	< 0.005	< 0.005	1.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.80	19.4	35.3	0.06	0.18	—	0.18	0.18	—	0.18	—	6,597	6,597	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	1.86	3.39	0.01	0.02	—	0.02	0.02	—	0.02	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.34	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.26	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	265	265	0.01	0.01	0.03	268
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.1	62.1	< 0.005	0.01	< 0.005	65.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.7	25.7	< 0.005	< 0.005	0.05	26.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.96	5.96	< 0.005	< 0.005	0.01	6.23
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.25	4.25	< 0.005	< 0.005	0.01	4.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.54	0.89	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	149	149	0.01	< 0.005	—	150
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.25	0.29	3.25	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	681	681	0.03	0.03	0.08	690
Vendor	0.03	0.02	0.70	0.21	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.01	0.09	0.04	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.2	39.2	< 0.005	< 0.005	0.07	39.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.5	33.5	< 0.005	0.01	0.04	35.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.48	6.48	< 0.005	< 0.005	0.01	6.58
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.54	5.54	< 0.005	< 0.005	0.01	5.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.25	6.77	11.2	0.02	0.07	—	0.07	0.06	—	0.06	—	1,879	1,879	0.08	0.02	—	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.24	2.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	311	311	0.01	< 0.005	—	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.23	0.23	3.98	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	726	726	0.03	0.03	2.67	737
Vendor	0.03	0.01	0.64	0.20	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	581	581	0.01	0.09	1.65	610
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.25	3.01	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	667	667	0.03	0.03	0.07	676
Vendor	0.03	0.01	0.67	0.20	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	582	582	0.01	0.09	0.04	608
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.27	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	483	483	0.02	0.02	0.82	490
Vendor	0.02	0.01	0.48	0.14	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	415	415	0.01	0.06	0.51	435
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.04	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	79.9	79.9	< 0.005	< 0.005	0.14	81.1
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.8	68.8	< 0.005	0.01	0.08	72.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	2.30	3.80	0.01	0.02	—	0.02	0.02	—	0.02	—	638	638	0.03	0.01	—	640
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.42	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	106	106	< 0.005	< 0.005	—	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.20	3.70	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	710	710	0.03	0.02	2.41	721
Vendor	0.03	0.01	0.61	0.19	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	572	572	0.01	0.09	1.56	600
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.21	0.23	2.81	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	653	653	0.01	0.03	0.06	661

Vendor	0.03	0.01	0.64	0.19	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	572	572	0.01	0.09	0.04	599
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.71	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.25	163
Vendor	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	< 0.005	0.02	0.16	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.6	26.6	< 0.005	< 0.005	0.04	26.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.0	23.0	< 0.005	< 0.005	0.03	24.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.03	0.92	1.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	192	192	0.01	< 0.005	—	193
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.0	25.0	< 0.005	< 0.005	0.04	25.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.14	4.14	< 0.005	< 0.005	0.01	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.75	2.57	< 0.005	0.02	—	0.02	0.02	—	0.02	—	367	367	0.01	< 0.005	—	368
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.32	0.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	60.7	60.7	< 0.005	< 0.005	—	60.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.7	46.7	< 0.005	< 0.005	0.07	47.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.74	7.74	< 0.005	< 0.005	0.01	7.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.18	0.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Architectural Coatings	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.76
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.60	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	0.01	0.01	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.03	17.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.85	2.85	< 0.005	< 0.005	< 0.005	2.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.35	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.2	43.2	< 0.005	< 0.005	—	43.3
Architectural Coatings	—	0.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.48	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.56	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.01	132
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.1	32.1	< 0.005	< 0.005	0.05	32.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.32	5.32	< 0.005	< 0.005	0.01	5.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	10/1/2024	10/14/2024	5.00	10.0	10
Grading	Grading	10/15/2024	12/2/2024	5.00	35.0	35
Building Construction	Building Construction	12/3/2024	5/4/2026	5.00	370	370
Paving	Paving	10/28/2025	5/4/2026	5.00	135	20
Architectural Coating	Architectural Coating	10/28/2025	5/4/2026	5.00	135	20

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45

Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	51.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	19.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	189,513	63,171	45,660

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	35.0	0.00	—
Grading	—	—	140	0.00	—
Paving	0.00	0.00	0.00	0.00	17.3

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
High Turnover (Sit Down Restaurant)	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Automobile Care Center	0.00	0%
Other Asphalt Surfaces	17.3	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6

Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074
Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827

Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5

Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0

Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces

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APPENDIX 3.2:

CALEEMOD PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Operations) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Operations)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	80.7	76.4	74.3	688	1.74	1.38	151	152	1.30	38.3	39.6	311	180,586	180,898	38.2	7.78	756	184,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	75.1	70.8	79.5	569	1.63	1.37	151	152	1.30	38.3	39.6	311	169,805	170,116	38.4	8.03	156	173,626
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	64.6	61.3	69.6	509	1.41	1.20	129	130	1.13	32.6	33.8	311	147,302	147,614	37.4	6.97	367	150,994
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.8	11.2	12.7	92.9	0.26	0.22	23.5	23.7	0.21	5.96	6.16	51.5	24,388	24,439	6.20	1.15	60.8	24,999

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	79.6	72.6	72.8	681	1.73	1.26	151	152	1.19	38.3	39.5	—	176,908	176,908	6.57	7.61	616	179,956
Area	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	80.7	76.4	74.3	688	1.74	1.38	151	152	1.30	38.3	39.6	311	180,586	180,898	38.2	7.78	756	184,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	74.9	67.9	78.1	568	1.62	1.26	151	152	1.19	38.3	39.5	—	166,149	166,149	6.80	7.86	16.0	168,678
Area	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	75.1	70.8	79.5	569	1.63	1.37	151	152	1.30	38.3	39.6	311	169,805	170,116	38.4	8.03	156	173,626

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.8	57.7	68.2	504	1.40	1.08	129	130	1.02	32.6	33.7	—	143,631	143,631	5.84	6.80	228	146,030
Area	0.67	3.47	0.03	3.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.5
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	64.6	61.3	69.6	509	1.41	1.20	129	130	1.13	32.6	33.8	311	147,302	147,614	37.4	6.97	367	150,994
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.6	10.5	12.4	92.0	0.26	0.20	23.5	23.7	0.19	5.96	6.14	—	23,780	23,780	0.97	1.13	37.7	24,177
Area	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Energy	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	571	571	0.05	< 0.005	—	574
Water	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3
Waste	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1
Total	11.8	11.2	12.7	92.9	0.26	0.22	23.5	23.7	0.21	5.96	6.16	51.5	24,388	24,439	6.20	1.15	60.8	24,999

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.66	0.60	0.60	5.65	0.01	0.01	1.25	1.26	0.01	0.32	0.33	—	1,467	1,467	0.05	0.06	5.11	1,493
High Turnover (Sit Down Restaurant)	5.58	5.09	5.10	47.7	0.12	0.09	10.6	10.7	0.08	2.69	2.77	—	12,400	12,400	0.46	0.53	43.2	12,614
Fast Food Restaurant with Drive Thru	37.0	33.8	33.9	317	0.81	0.59	70.3	70.9	0.55	17.8	18.4	—	82,345	82,345	3.06	3.54	287	83,764
Convenience Market with Gas Pumps	33.7	30.8	30.9	289	0.73	0.53	64.0	64.5	0.50	16.2	16.7	—	74,989	74,989	2.79	3.23	261	76,281
Automobile Care Center	2.57	2.34	2.35	22.0	0.06	0.04	4.87	4.91	0.04	1.24	1.27	—	5,706	5,706	0.21	0.25	19.9	5,805
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	79.6	72.6	72.8	681	1.73	1.26	151	152	1.19	38.3	39.5	—	176,908	176,908	6.57	7.61	616	179,956
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.62	0.56	0.65	4.71	0.01	0.01	1.25	1.26	0.01	0.32	0.33	—	1,378	1,378	0.06	0.07	0.13	1,399
High Turnover (Sit Down Restaurant)	5.25	4.76	5.47	39.8	0.11	0.09	10.6	10.7	0.08	2.69	2.77	—	11,646	11,646	0.48	0.55	1.12	11,823

Fast Food Restaurant with Drive Thru	34.9	31.6	36.3	264	0.76	0.59	70.3	70.9	0.55	17.8	18.4	—	77,337	77,337	3.16	3.66	7.43	78,514
Convenience Market with Gas Pumps	31.8	28.8	33.1	241	0.69	0.54	64.0	64.5	0.50	16.2	16.7	—	70,429	70,429	2.88	3.33	6.77	71,501
Automobile Care Center	2.42	2.19	2.52	18.3	0.05	0.04	4.87	4.91	0.04	1.24	1.27	—	5,359	5,359	0.22	0.25	0.52	5,441
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	74.9	67.9	78.1	568	1.62	1.26	151	152	1.19	38.3	39.5	—	166,149	166,149	6.80	7.86	16.0	168,678
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.09	0.10	0.76	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	—	197	197	0.01	0.01	0.31	201
High Turnover (Sit Down Restaurant)	0.76	0.69	0.82	6.04	0.02	0.01	1.54	1.55	0.01	0.39	0.40	—	1,560	1,560	0.06	0.07	2.47	1,587
Fast Food Restaurant with Drive Thru	5.02	4.55	5.37	39.7	0.11	0.09	10.1	10.2	0.08	2.57	2.65	—	10,267	10,267	0.42	0.49	16.3	10,438
Convenience Market with Gas Pumps	5.31	4.81	5.68	42.0	0.12	0.09	10.7	10.8	0.08	2.72	2.80	—	10,859	10,859	0.44	0.51	17.2	11,041

Automob Care Center	0.44	0.40	0.47	3.47	0.01	0.01	0.88	0.89	0.01	0.22	0.23	—	896	896	0.04	0.04	1.42	911
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	11.6	10.5	12.4	92.0	0.26	0.20	23.5	23.7	0.19	5.96	6.14	—	23,780	23,780	0.97	1.13	37.7	24,177

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.2	58.2	0.01	< 0.005	—	58.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	0.01	< 0.005	—	66.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.01	< 0.005	—	102
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	50.6	50.6	< 0.005	< 0.005	—	50.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	8.15	8.15	< 0.005	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.03	< 0.005	—	286

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440
Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.5	81.5	0.01	< 0.005	—	81.8
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	112
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97

Automob Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	287	287	0.03	< 0.005	—	288

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.98	0.90	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Total	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.12	0.11	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Total	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.90	19.9	25.8	0.61	0.01	—	45.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.16	3.89	5.05	0.12	< 0.005	—	8.87
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.77	5.97	7.74	0.18	< 0.005	—	13.6
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.11	0.36	0.46	0.01	< 0.005	—	0.82
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.12	3.79	4.91	0.12	< 0.005	—	8.63

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6

Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.75	0.00	6.75	0.67	0.00	—	23.6
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.23
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.18	0.00	—	6.47
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71	1.71
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.2	13.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.12	7.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	118	142	121	44,565	1,468	1,767	1,498	552,940
High Turnover (Sit Down Restaurant)	904	1,033	1,204	352,315	11,216	12,818	14,937	4,371,313
Fast Food Restaurant with Drive Thru	6,066	7,994	6,132	2,318,066	75,262	99,190	76,082	28,761,191
Convenience Market with Gas Pumps	2,083	2,363	2,612	802,460	25,844	29,313	32,412	9,956,447
Convenience Market with Gas Pumps	4,668	3,938	4,354	1,649,352	57,918	48,855	54,019	20,464,180
Automobile Care Center	554	554	554	202,210	6,874	6,874	6,874	2,508,907
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	189,513	63,171	45,660

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	370,388	346	0.0330	0.0040	1,536,501
High Turnover (Sit Down Restaurant)	421,379	346	0.0330	0.0040	1,368,706
Fast Food Restaurant with Drive Thru	646,114	346	0.0330	0.0040	2,098,682
Convenience Market with Gas Pumps	131,142	346	0.0330	0.0040	68,616
Convenience Market with Gas Pumps	190,906	346	0.0330	0.0040	99,886
Automobile Care Center	51,912	346	0.0330	0.0040	233,006
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	18,610,538	0.00
High Turnover (Sit Down Restaurant)	3,642,405	0.00
Fast Food Restaurant with Drive Thru	5,585,020	0.00

Convenience Market with Gas Pumps	125,486	0.00
Convenience Market with Gas Pumps	209,144	0.00
Automobile Care Center	3,543,540	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	75.6	—
High Turnover (Sit Down Restaurant)	143	—
Fast Food Restaurant with Drive Thru	212	—
Convenience Market with Gas Pumps	5.08	—
Convenience Market with Gas Pumps	8.47	—
Automobile Care Center	20.7	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00

Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Automobile Care Center	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0

Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074

Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8

Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Vehicle Data	Trip characteristics based on information from Traffic Analysis.
Operations: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Water and Waste Water	The project includes the construction and operation of a 5,425 square foot automated car wash. Water usage for the car wash has been estimated based on the Water Use, Evaporation and Carryout Conveyor Car Washes (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle. Per the Perris Gateway Traffic Analysis, the Automated Car wash use is anticipated to generate 554 daily trips per day. On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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APPENDIX 3.3:

CALEEMOD PROJECT OPERATIONAL LST EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Operational LSTs) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Operational LSTs)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	57.8	59.3	16.1	104	0.05	0.20	0.85	1.05	0.19	0.22	0.41	311	7,825	8,136	33.9	1.41	143	9,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	52.5	54.0	16.8	113	0.05	0.19	0.85	1.04	0.18	0.22	0.40	311	7,783	8,094	34.3	1.45	140	9,522
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	45.2	46.8	14.6	102	0.04	0.19	0.73	0.91	0.18	0.18	0.36	311	7,209	7,520	33.9	1.27	141	8,886
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.24	8.54	2.67	18.6	0.01	0.03	0.13	0.17	0.03	0.03	0.07	51.5	1,194	1,245	5.61	0.21	23.3	1,471

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.6	55.5	14.6	96.8	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,146	4,146	2.34	1.24	3.48	4,577
Area	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	57.8	59.3	16.1	104	0.05	0.20	0.85	1.05	0.19	0.22	0.41	311	7,825	8,136	33.9	1.41	143	9,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	52.4	51.1	15.4	112	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,127	4,127	2.65	1.28	0.09	4,574
Area	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	52.5	54.0	16.8	113	0.05	0.19	0.85	1.04	0.18	0.22	0.40	311	7,783	8,094	34.3	1.45	140	9,522

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.3	43.2	13.1	96.7	0.03	0.07	0.73	0.79	0.06	0.18	0.25	—	3,538	3,538	2.28	1.09	1.29	3,922
Area	0.67	3.47	0.03	3.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.5
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	45.2	46.8	14.6	102	0.04	0.19	0.73	0.91	0.18	0.18	0.36	311	7,209	7,520	33.9	1.27	141	8,886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.09	7.89	2.40	17.6	0.01	0.01	0.13	0.14	0.01	0.03	0.05	—	586	586	0.38	0.18	0.21	649
Area	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Energy	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	571	571	0.05	< 0.005	—	574
Water	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3
Waste	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1
Total	8.24	8.54	2.67	18.6	0.01	0.03	0.13	0.17	0.03	0.03	0.07	51.5	1,194	1,245	5.61	0.21	23.3	1,471

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.47	0.46	0.12	0.80	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	0.02	0.01	0.03	38.0
High Turnover (Sit Down Restaurant)	3.97	3.89	1.02	6.78	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	291	291	0.16	0.09	0.24	321
Fast Food Restaurant with Drive Thru	26.4	25.8	6.78	45.1	0.02	0.04	0.40	0.43	0.03	0.10	0.13	—	1,930	1,930	1.09	0.58	1.62	2,130
Convenience Market with Gas Pumps	24.0	23.5	6.17	41.0	0.02	0.03	0.36	0.39	0.03	0.09	0.12	—	1,758	1,758	0.99	0.52	1.47	1,940
Automobile Care Center	1.83	1.79	0.47	3.12	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	134	134	0.08	0.04	0.11	148
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	56.6	55.5	14.6	96.8	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,146	4,146	2.34	1.24	3.48	4,577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.43	0.42	0.13	0.93	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.2	34.2	0.02	0.01	< 0.005	37.9
High Turnover (Sit Down Restaurant)	3.67	3.58	1.08	7.85	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	289	289	0.19	0.09	0.01	321

Fast Food Restaurant with Drive Thru	24.4	23.8	7.16	52.1	0.02	0.04	0.40	0.43	0.03	0.10	0.14	—	1,921	1,921	1.23	0.59	0.04	2,129
Convenience Market with Gas Pumps	22.2	21.6	6.52	47.5	0.02	0.03	0.36	0.40	0.03	0.09	0.12	—	1,750	1,750	1.12	0.54	0.04	1,939
Automobile Care Center	1.69	1.65	0.50	3.61	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	133	133	0.09	0.04	< 0.005	148
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	52.4	51.1	15.4	112	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,127	4,127	2.65	1.28	0.09	4,574
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.07	0.02	0.15	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.86	4.86	< 0.005	< 0.005	< 0.005	5.39
High Turnover (Sit Down Restaurant)	0.53	0.52	0.16	1.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.4	38.4	0.02	0.01	0.01	42.6
Fast Food Restaurant with Drive Thru	3.49	3.41	1.04	7.62	< 0.005	0.01	0.06	0.06	< 0.005	0.01	0.02	—	253	253	0.16	0.08	0.09	280
Convenience Market with Gas Pumps	3.70	3.60	1.09	8.06	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	267	267	0.17	0.08	0.10	297

Automob Care Center	0.30	0.30	0.09	0.66	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	22.1	22.1	0.01	0.01	0.01	24.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.09	7.89	2.40	17.6	0.01	0.01	0.13	0.14	0.01	0.03	0.05	—	586	586	0.38	0.18	0.21	649

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.2	58.2	0.01	< 0.005	—	58.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	0.01	< 0.005	—	66.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.01	< 0.005	—	102
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	50.6	50.6	< 0.005	< 0.005	—	50.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	8.15	8.15	< 0.005	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.03	< 0.005	—	286

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440
Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.5	81.5	0.01	< 0.005	—	81.8
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	112
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97

Automob Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	287	287	0.03	< 0.005	—	288

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.98	0.90	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Total	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.12	0.11	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Total	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.90	19.9	25.8	0.61	0.01	—	45.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.16	3.89	5.05	0.12	< 0.005	—	8.87
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.77	5.97	7.74	0.18	< 0.005	—	13.6
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.11	0.36	0.46	0.01	< 0.005	—	0.82
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.12	3.79	4.91	0.12	< 0.005	—	8.63

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6

Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.75	0.00	6.75	0.67	0.00	—	23.6
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.23
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.18	0.00	—	6.47
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71	1.71
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.2	13.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.12	7.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	118	142	121	44,565	8.28	9.97	8.45	3,120
High Turnover (Sit Down Restaurant)	904	1,033	1,204	352,315	63.3	72.3	84.3	24,662
Fast Food Restaurant with Drive Thru	6,066	7,994	6,132	2,318,066	425	560	429	162,265
Convenience Market with Gas Pumps	2,083	2,363	2,612	802,460	146	165	183	56,172
Convenience Market with Gas Pumps	4,668	3,938	4,354	1,649,352	327	276	305	115,455
Automobile Care Center	554	554	554	202,210	38.8	38.8	38.8	14,155
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	189,513	63,171	45,660

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	370,388	346	0.0330	0.0040	1,536,501
High Turnover (Sit Down Restaurant)	421,379	346	0.0330	0.0040	1,368,706
Fast Food Restaurant with Drive Thru	646,114	346	0.0330	0.0040	2,098,682
Convenience Market with Gas Pumps	131,142	346	0.0330	0.0040	68,616
Convenience Market with Gas Pumps	190,906	346	0.0330	0.0040	99,886
Automobile Care Center	51,912	346	0.0330	0.0040	233,006
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	18,610,538	0.00
High Turnover (Sit Down Restaurant)	3,642,405	0.00
Fast Food Restaurant with Drive Thru	5,585,020	0.00

Convenience Market with Gas Pumps	125,486	0.00
Convenience Market with Gas Pumps	209,144	0.00
Automobile Care Center	3,543,540	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	75.6	—
High Turnover (Sit Down Restaurant)	143	—
Fast Food Restaurant with Drive Thru	212	—
Convenience Market with Gas Pumps	5.08	—
Convenience Market with Gas Pumps	8.47	—
Automobile Care Center	20.7	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00

Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Automobile Care Center	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0

Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074

Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8

Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Vehicle Data	Trip characteristics based on information from Traffic Analysis. Operational LSTs on-site travel was estimated to be 0.07 miles
Operations: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Water and Waste Water	The project includes the construction and operation of a 5,425 square foot automated car wash. Water usage for the car wash has been estimated based on the Water Use, Evaporation and Carryout Conveyor Car Washes (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle. Per the Perris Gateway Traffic Analysis, the Automated Car wash use is anticipated to generate 554 daily trips per day. On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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APPENDIX 3.4:

SCAQMD AMICUS BRIEF

S219783

IN THE SUPREME COURT OF C ALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,

Plaintiffs and Appellants,

v.

COUNTY OF FRESNO,

Defendant and Respondent,

and,

FRIANT RANCH, L.P.,

Real Party in Interest and Respondent.

SUPREME COURT
FILED

APR 13 2015

Frank A. McGuire Clerk

Deputy

After a Published Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726
Honorable Rosendo A. Pena, Jr.

APPLICATION OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT FOR LEAVE TO FILE BRIEF OF *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY AND *[PROPOSED]* BRIEF OF *AMICUS CURIAE*

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TO THE HONORABLE CHIEF JUSTICE AND JUSTICES OF THE SUPREME COURT:

APPLICATION FOR LEAVE TO FILE *AMICUS CURIAE* BRIEF

Pursuant to Rule 8.520(f) of the California Rules of Court, the South Coast Air Quality Management District (SCAQMD) respectfully requests leave to file the attached *amicus curiae* brief. Because SCAQMD's position differs from that of either party, we request leave to submit this amicus brief in support of neither party.

HOW THIS BRIEF WILL ASSIST THE COURT

SCAQMD's proposed amicus brief takes a position on two of the issues in this case. In both instances, its position differs from that of either party. The issues are:

1) Does the California Environmental Quality Act (CEQA) require an environmental impact report (EIR) to correlate a project's air pollution emissions with specific levels of health impacts?
2) What is the proper standard of review for determining whether an EIR provides sufficient information on the health impacts caused by a project's emission of air pollutants?

This brief will assist the Court by discussing the practical realities of correlating identified air quality impacts with specific health outcomes. In short, CEQA requires agencies to provide detailed information about a project's air quality impacts that is sufficient for the public and decisionmakers to adequately evaluate the project and meaningfully understand its impacts. However, the level of analysis is governed by a rule of reason; CEQA only requires agencies to conduct analysis if it is reasonably feasible to do so.

With regard to health-related air quality impacts, an analysis that correlates a project's air pollution emissions with specific levels of health impacts will be feasible in some cases but not others. Whether it is feasible depends on a variety of factors, including the nature of the project and the nature of the analysis under consideration. The feasibility of analysis may also change over time as air districts and others develop new tools for measuring projects' air quality related health impacts. Because SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, it is uniquely situated to express an opinion on the extent to which the Court should hold that CEQA requires lead agencies to correlate air quality impacts with specific health outcomes.

SCAQMD can also offer a unique perspective on the question of the appropriate standard of review. SCAQMD submits that the proper standard of review for determining whether an EIR is sufficient as an informational document is more nuanced than argued by either party. In our view, this is a mixed question of fact and law. It includes determining whether additional analysis is feasible, which is primarily a factual question that should be reviewed under the substantial evidence standard. However, it also involves determining whether the omission of a particular analysis renders an EIR insufficient to serve CEQA's purpose as a meaningful, informational document. If a lead agency has not determined that a requested analysis is infeasible, it is the court's role to determine whether the EIR nevertheless meets CEQA's purposes, and courts should not defer to the lead agency's conclusions regarding the legal sufficiency of an EIR's analysis. The ultimate question of whether an EIR's analysis is "sufficient" to serve CEQA's informational purposes is predominately a question of law that courts should review de novo.

This brief will explain the rationale for these arguments and may assist the Court in reaching a conclusion that accords proper respect to a lead agency's factual conclusions while maintaining judicial authority over the ultimate question of what level of analysis CEQA requires.

STATEMENT OF INTEREST OF *AMICUS CURIAE*

The SCAQMD is the regional agency primarily responsible for air pollution control in the South Coast Air Basin, which consists of all of Orange County and the non-desert portions of the Los Angeles, Riverside, and San Bernardino Counties. (Health & Saf. Code § 40410; Cal. Code Regs., tit. 17, § 60104.) The SCAQMD participates in the CEQA process in several ways. Sometimes it acts as a lead agency that prepares CEQA documents for projects. Other times it acts as a responsible agency when it has permit authority over some part of a project that is undergoing CEQA review by a different lead agency. Finally, SCAQMD also acts as a commenting agency for CEQA documents that it receives because it is a public agency with jurisdiction by law over natural resources affected by the project.

In all of these capacities, SCAQMD will be affected by the decision in this case. SCAQMD sometimes submits comments requesting that a lead agency perform an additional type of air quality or health impacts analysis. On the other hand, SCAQMD sometimes determines that a particular type of health impact analysis is not feasible or would not produce reliable and informative results. Thus, SCAQMD will be affected by the Court's resolution of the extent to which CEQA requires EIRs to correlate emissions and health impacts, and its resolution of the proper standard of review.

CERTIFICATION REGARDING AUTHORSHIP AND FUNDING

No party or counsel in the pending case authored the proposed amicus curiae brief in whole or in part, or made any monetary contribution intended to fund the preparation or submission of the brief. No person or entity other than the proposed *Amicus Curiae* made any monetary contribution intended to fund the preparation or submission of the brief.

Respectfully submitted,

DATED: April 3, 2015

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT
KURT R. WIESE, GENERAL COUNSEL
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SOUTH COAST AIR QUALITY
MANAGEMENT DISTICT

BRIEF OF AMICUS CURIAE

SUMMARY OF ARGUMENT

The South Coast Air Quality Management District (SCAQMD) submits that this Court should not try to establish a hard-and-fast rule concerning whether lead agencies are required to correlate emissions of air pollutants with specific health consequences in their environmental impact reports (EIR). The level of detail required in EIRs is governed by a few, core CEQA (California Environmental Quality Act) principles. As this Court has stated, "[a]n EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Laurel Heights Improvement Assn. v. Regents of the Univ of Cal.* (1988) 47 Cal.3d 376, 405 ["*Laurel Heights 1*"]) Accordingly, "an agency must use its best efforts to find out and disclose all that it reasonably can." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 428 (quoting CEQA Guidelines § 15144)[1].). However, "[a]nalysis of environmental effects need not be exhaustive, but will be judged in light of what is reasonably feasible." (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390; CEQA Guidelines §§ 15151, 15204(a).)

With regard to analysis of air quality related health impacts, EIRs must generally quantify a project's pollutant emissions, but in some cases it is not feasible to correlate these emissions to specific, quantifiable health impacts (e.g., premature mortality; hospital admissions). In such cases, a general description of the adverse health impacts resulting from the pollutants at issue may be sufficient. In other cases, due to the magnitude

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[1] The CEQA Guidelines are found at Cal. Code Regs., tit. 14 §§ 15000, *et seq*.

or nature of the pollution emissions, as well as the specificity of the project involved, it may be feasible to quantify health impacts. Or there may be a less exacting, but still meaningful analysis of health impacts that can feasibly be performed. In these instances, agencies should disclose those impacts.

SCAQMD also submits that whether or not an EIR complies with CEQA's informational mandates by providing sufficient, feasible analysis is a mixed question of fact and law. Pertinent here, the question of whether an EIR's discussion of health impacts from air pollution is sufficient to allow the public to understand and consider meaningfully the issues involves two inquiries: (1) Is it feasible to provide the information or analysis that a commenter is requesting or a petitioner is arguing should be required?; and (2) Even if it is feasible, is the agency relying on other policy or legal considerations to justify not preparing the requested analysis? The first question of whether an analysis is feasible is primarily a question of fact that should be judged by the substantial evidence standard. The second inquiry involves evaluating CEQA's information disclosure purposes against the asserted reasons to not perform the requested analysis. For example, an agency might believe that its EIR meets CEQA's informational disclosure standards even without a particular analysis, and therefore choose not to conduct that analysis. SCAQMD submits that this is more of a legal question, which should be reviewed de novo as a question of law.

ARGUMENT

I. RELEVANT FACTUAL AND LEGAL FRAMEWORK.

A. Air Quality Regulatory Background

The South Coast Air Quality Management District (SCAQMD) is one of the local and regional air pollution control districts and air quality

management districts in California. The SCAQMD is the regional air pollution agency for the South Coast Air Basin, which consists of all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. (Health & Saf. Code § 40410, 17 Cal. Code Reg. § 60104.) The SCAQMD also includes the Coachella Valley in Riverside County (Palm Springs area to the Salton Sea). (SCAQMD, *Final 2012 AQMP (Feb. 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "chapter 7" hyperlink; pp 7-1, 7-3 (last visited Apr. 1, 2015).) The SCAQMD's jurisdiction includes over 16 million residents and has the worst or nearly the worst air pollution levels in the country for ozone and fine particulate matter. (SCAQMD, *Final 2012 AQMP (Feb. 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "Executive Summary" hyperlink p. ES-1 (last visited Apr. 1, 2015).)

Under California law, the local and regional districts are primarily responsible for controlling air pollution from all sources except motor vehicles. (Health & Saf. Code § 40000.) The California Air Resources Board (CARB), part of the California Environmental Protection Agency, is primarily responsible for controlling pollution from motor vehicles. (*Id.*) The air districts must adopt rules to achieve and maintain the state and federal ambient air quality standards within their jurisdictions. (Health & Saf. Code § 40001.)

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (EPA) to identify pollutants that are widely distributed and pose a threat to human health, developing a so-called "criteria" document. (42 U.S.C. § 7408; CAA § 108.) These pollutants are frequently called "criteria pollutants." EPA must then establish "national ambient air quality standards" at levels "requisite to protect public health",

allowing "an adequate margin of safety." (42 U.S.C. § 7409; CAA § 109.) EPA has set standards for six identified pollutants: ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, particulate matter (PM), and lead. (U.S. EPA, National Ambient Air Quality Standards (NAAQS), http://www.epa.gov/air/criteria.html (last updated Oct. 21, 2014).)[2]

Under the Clean Air Act, EPA sets emission standards for motor vehicles and "nonroad engines" (mobile farm and construction equipment, marine vessels, locomotives, aircraft, etc.). (42 U.S.C. §§ 7521, 7547; CAA §§ 202, 213.) California is the only state allowed to establish emission standards for motor vehicles and most nonroad sources; however, it may only do so with EPA's approval. (42 U.S.C. §§ 7543(b), 7543(e); CAA §§ 209(b), 209(c).) Sources such as manufacturing facilities, power plants and refineries that are not mobile are often referred to as "stationary sources." The Clean Air Act charges state and local agencies with the primary responsibility to attain the national ambient air quality standards. (42 U.S.C. § 7401(a)(3); CAA § 101(a)(3).) Each state must adopt and implement a plan including enforceable measures to achieve and maintain the national ambient air quality standards. (42 U.S.C. § 7410; CAA § 110.) The SCAQMD and CARB jointly prepare portion of the plan for the South Coast Air Basin and submit it for approval by EPA. (Health & Saf. Code §§ 40460, et seq.)

The Clean Air Act also requires state and local agencies to adopt a permit program requiring, among other things, that new or modified "major" stationary sources use technology to achieve the "lowest achievable emission rate," and to control minor stationary sources as

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[2] Particulate matter (PM) is further divided into two categories: fine particulate or $PM_{2.5}$ (particles with a diameter of less than or equal to 2.5 microns) and coarse particulate (PM_{10}) (particles with a diameter of 10 microns or less). (U.S. EPA, Particulate Matter (PM), http://www.epa.gov/airquality/particlepollution/ (last visited Apr. 1, 2015).)

needed to help attain the standards. (42 U.S.C. §§ 7502(c)(5), 7503(a)(2), 7410(a)(2)(C); CAA §§ 172(c)(5), 173(a)(2), 110(a)(2)(C).) The air districts implement these permit programs in California. (Health & Saf. Code §§ 42300, et seq.)

The Clean Air Act also sets out a regulatory structure for over 100 so-called "hazardous air pollutants" calling for EPA to establish "maximum achievable control technology" (MACT) for sources of these pollutants. (42 U.S.C. § 7412(d)(2); CAA § 112(d)(2).) California refers to these pollutants as "toxic air contaminants" (TACs) which are subject to two state-required programs. The first program requires "air toxics control measures" for specific categories of sources. (Health & Saf. Code § 39666.) The other program requires larger stationary sources and sources identified by air districts to prepare "health risk assessments" for impacts of toxic air contaminants. (Health & Saf. Code §§ 44320(b), 44322, 44360.) If the health risk exceeds levels identified by the district as "significant," the facility must implement a "risk reduction plan" to bring its risk levels below "significant" levels. Air districts may adopt additional more stringent requirements than those required by state law, including requirements for toxic air contaminants. (Health & Saf. Code § 41508; *Western Oil & Gas Assn. v. Monterey Bay Unified APCD* (1989) 49 Cal.3d 408, 414.) For example, SCAQMD has adopted a rule requiring new or modified sources to keep their risks below specified levels and use best available control technology (BACT) for toxics. (SCAQMD, *Rule 1401-New Source Review of Toxic Air Contaminants*, http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book/regulation-xiv; then follow "Rule 1401" hyperlink (last visited Apr. 1, 2015).)

B. The SCAQMD's Role Under CEQA

The California Environmental Quality Act (CEQA) requires public agencies to perform an environmental review and appropriate analysis for projects that they implement or approve. (Pub. Resources Code § 21080(a).) The agency with primary approval authority for a particular project is generally the "lead agency" that prepares the appropriate CEQA document. (CEQA Guidelines §§ 15050, 15051.) Other agencies having a subsequent approval authority over all or part of a project are called "responsible" agencies that must determine whether the CEQA document is adequate for their use. (CEQA Guidelines §§ 15096(c), 15381.) Lead agencies must also consult with and circulate their environmental impact reports to "trustee agencies" and agencies "with jurisdiction by law" including "authority over resources which may be affected by the project." (Pub. Resources Code §§ 21104(a), 21153; CEQA Guidelines §§ 15086(a)(3), 15073(c).) The SCAQMD has a role in all these aspects of CEQA.

Fulfilling its responsibilities to implement its air quality plan and adopt rules to attain the national ambient air quality standards, SCAQMD adopts a dozen or more rules each year to require pollution reductions from a wide variety of sources. The SCAQMD staff evaluates each rule for any adverse environmental impact and prepares the appropriate CEQA document. Although most rules reduce air emissions, they may have secondary environmental impacts such as use of water or energy or disposal of waste—e.g., spent catalyst from control equipment.[3]

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[3] The SCAQMD's CEQA program for its rules is a "Certified Regulatory Program" under which it prepares a "functionally equivalent" document in lieu of a negative declaration or EIR. (Pub. Resources Code § 21080.5, CEQA Guidelines § 15251(l).)

The SCAQMD also approves a large number of permits every year to construct new, modified, or replacement facilities that emit regulated air pollutants. The majority of these air pollutant sources have already been included in an earlier CEQA evaluation for a larger project, are currently being evaluated by a local government as lead agency, or qualify for an exemption. However, the SCAQMD sometimes acts as lead agency for major projects where the local government does not have a discretionary approval. In such cases, SCAQMD prepares and certifies a negative declaration or environmental impact report (EIR) as appropriate.[4] SCAQMD evaluates perhaps a dozen such permit projects under CEQA each year. SCAQMD is often also a "responsible agency" for many projects since it must issue a permit for part of the projects (e.g., a boiler used to provide heat in a commercial building). For permit projects evaluated by another lead agency under CEQA, SCAQMD has the right to determine that the CEQA document is inadequate for its purposes as a responsible agency, but it may not do so because its permit program already requires all permitted sources to use the best available air pollution control technology. (SCAQMD, *Rule 1303(a)(1) – Requirements*, http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book/regulation-xiii; then follow "Rule 1303" hyperlink (last visited Apr. 1, 2015).)

Finally, SCAQMD receives as many as 60 or more CEQA documents each month (around 500 per year) in its role as commenting agency or an agency with "jurisdiction by law" over air quality—a natural resource affected by the project. (Pub. Resources Code §§ 21104(a), 21153; CEQA Guidelines § 15366(a)(3).) The SCAQMD staff provides comments on as many as 25 or 30 such documents each month.

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[4] The SCAQMD's permit projects are not included in its Certified Regulatory Program, and are evaluated under the traditional local government CEQA analysis. (Pub. Resources Code §§ 21150-21154.)

(SCAQMD Governing Board Agenda, Apr. 3, 2015, Agenda Item 16, Attachment A, http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=governing-board-meeting-agenda-april-3-2015; then follow "16. Lead Agency Projects and Environmental Documents Received by SCAQMD" hyperlink (last visited Apr. 1, 2015).) Of course, SCAQMD focuses its commenting efforts on the more significant projects.

Typically, SCAQMD comments on the adequacy of air quality analysis, appropriateness of assumptions and methodology, and completeness of the recommended air quality mitigation measures. Staff may comment on the need to prepare a health risk assessment detailing the projected cancer and noncancer risks from toxic air contaminants resulting from the project, particularly the impacts of diesel particulate matter, which CARB has identified as a toxic air contaminant based on its carcinogenic effects. (California Air Resources Board, Resolution 98-35, Aug. 27, 1998, http://www.arb.ca.gov/regact/diesltac/diesltac.htm; then follow Resolution 98-35 hyperlink (last visited Apr. 1, 2015).) Because SCAQMD already requires new or modified stationary sources of toxic air contaminants to use the best available control technology for toxics and to keep their risks below specified levels, (SCAQMD Rule 1401, supra, note 15), the greatest opportunity to further mitigate toxic impacts through the CEQA process is by reducing emissions—particularly diesel emissions—from vehicles.

II. THIS COURT SHOULD NOT SET A HARD-AND-FAST RULE CONCERNING THE EXTENT TO WHICH AN EIR MUST CORRELATE A PROJECT'S EMISSION OF POLLUTANTS WITH RESULTING HEALTH IMPACTS.

Numerous cases hold that courts do not review the correctness of an EIR's conclusions but rather its sufficiency as an informative document. (*Laurel Heights 1*, *supra*, 47 Cal.3d at p. 392; *Citizens of Goleta Valley v.*

Bd. of Supervisors (1990) 52 Cal.3d 553, 569; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1197.)

As stated by the Court of Appeal in this case, where an EIR has addressed a topic, but the petitioner claims that the information provided about that topic is insufficient, courts must "draw[] a line that divides *sufficient* discussions from those that are *insufficient*." (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 (superseded by grant of review) 172 Cal.Rptr.3d 271, 290.) The Court of Appeal readily admitted that "[t]he terms themselves – sufficient and insufficient – provide little, if any, guidance as to where the line should be drawn. They are simply labels applied once the court has completed its analysis." (*Id.*)

The CEQA Guidelines, however, provide guidance regarding what constitutes a sufficient discussion of impacts. Section 15151 states that "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." Case law reflects this: "Analysis of environmental effects need not be exhaustive, but will be judged in light of what was reasonably feasible." (*Association of Irritated Residents v. County of Madera, supra,* 107 Cal.App.4th at p. 1390; see also CEQA Guidelines § 15204(a).)

Applying this test, this Court cannot realistically establish a hard-and-fast rule that an analysis correlating air pollution impacts of a project to quantified resulting health impacts is always required, or indeed that it is never required. Simply put, in some cases such an analysis will be "feasible"; in some cases it will not.

For example, air pollution control districts often require a proposed new source of toxic air contaminants to prepare a "health risk assessment" before issuing a permit to construct. District rules often limit the allowable cancer risk the new source may cause to the "maximally exposed individual" (worker and residence exposures). (*See, e.g.*, SCAQMD Rule 1401(c)(8); 1401(d)(1), *supra* note 15.) In order to perform this analysis, it

is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). (SCAQMD, *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (AB2588), pp. 11-16*; (last visited Apr. 1, 2015) http://www.aqmd.gov/home/library/documents-support-material; "Guidelines" hyperlink; AB2588; then follow AB2588 Risk Assessment Guidelines hyperlink.)

Thus, it is feasible to determine the health risk posed by a new gas station locating at an intersection in a mixed use area, where receptor locations are known. On the other hand, it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk—it does not necessarily mean anyone will contract cancer as a result of the project.

In order to find the "cancer burden" or expected additional cases of cancer resulting from the project, it is also necessary to know the numbers and location of individuals living within the "zone of impact" of the project: i.e., those living in areas where the projected cancer risk from the project exceeds one in a million. (SCAQMD, Health Risk Assessment Summary form, http://www.aqmd.gov/home/forms ; filter by "AB2588" category; then "Health Risk Assessment" hyperlink (last visited Apr. 1, 2015).) The affected population is divided into bands of those exposed to at least 1 in a million risk, those exposed to at least 10 in a million risk, etc. up to those exposed at the highest levels. (*Id.*) This data allows agencies to calculate an approximate number of additional cancer cases expected from

the project. However, it is not possible to predict which particular individuals will be affected.

For the so-called criteria pollutants[5], such as ozone, it may be more difficult to quantify health impacts. Ozone is formed in the atmosphere from the chemical reaction of the nitrogen oxides (NO_x) and volatile organic compounds (VOC) in the presence of sunlight. (U.S. EPA, Ground Level Ozone, http://www.epa.gov/airquality/ozonepollution/ (last updated Mar. 25, 2015).) It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. (U.S. EPA, *Guideline on Ozone Monitoring Site Selection* (Aug. 1998) EPA-454/R-98-002 § 5.1.2, http://www.epa.gov/ttnamti1/archive/cpreldoc.html (last visited Apr. 1, 2015).) NO_x and VOC are known as "precursors" of ozone.

Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes. (U.S. EPA, *Health Effects of Ozone in the General Population,* Figure 9, http://www.epa.gov/apti/ozonehealth/population.html#levels (last visited Apr. 1, 2015).) However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP showed that reducing NO_x by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. (South Coast Air Quality Management District, *Final 2012 AQMP (February 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "Appendix V: Modeling & Attainment Demonstrations" hyperlink,

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[5] See discussion of types of pollutants, supra, Part I.A.

pp. v-4-2, v-7-4, v-7-24.) SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects.

On the other hand, this type of analysis may be feasible for projects on a regional scale with very high emissions of NO_x and VOCs, where impacts are regional. For example, in 2011 the SCAQMD performed a health impact analysis in its CEQA document for proposed Rule 1315, which authorized various newly-permitted sources to use offsets from the districts "internal bank" of emission reductions. This CEQA analysis accounted for essentially *all* the increases in emissions due to new or modified sources in the District between 2010 and 2030.[6] The SCAQMD was able to correlate this very large emissions increase (e.g., 6,620 pounds per day NO_x (1,208 tons per year), 89,180 pounds per day VOC (16,275 tons per year)) to expected health outcomes from ozone and particulate matter (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to ozone).[7] (SCAQMD Governing Board Agenda, February 4, 2011, Agenda Item 26, *Assessment for: Re-adoption of Proposed Rule 1315 – Federal New Source Review Tracking System* (see hyperlink in fn 6) at p. 4.1-35, Table 4.1-29.)

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[6] (SCAQMD Governing Board Agenda, February 4, 2011, Agenda Item 26, Attachment G, *Assessment for: Re-adoption of Proposed Rule 1315 – Federal New Source Review Tracking System, Vol. 1, p.4.0-6*, http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=governing-board-meeting-agenda-february-4-2011; the follow "26. Adopt Proposed Rule 1315 – Federal New Source Review Tracking System" (last visited April 1, 2015).)

[7] The SCAQMD was able to establish the location of future NO_x and VOC emissions by assuming that new projects would be built in the same locations and proportions as existing stationary sources. This CEQA document was upheld by the Los Angeles County Superior Court in *Natural Res. Def. Council v SCAQMD*, Los Angeles Superior Court No. BS110792).

However, a project emitting only 10 tons per year of NO_x or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models that are currently used to determine ozone levels. Thus, in this case it would not be feasible to directly correlate project emissions of VOC or NO_x with specific health impacts from ozone. This is in part because ozone formation is not linearly related to emissions. Ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology and seasonal impacts, and because ozone is formed some time later and downwind from the actual emission. (EPA Guideline on Ozone Monitoring Site Selection (Aug. 1998) EPA-454/R-98-002, § 5.1.2; https://www.epa.gov/ttnamti1/archive/cpreldoc.html; then search "Guideline on Ozone Monitoring Site Selection" click on pdf) (last viewed Apr. 1, 2015).)

SCAQMD has set its CEQA "significance" threshold for NO_x and VOC at 10 tons per year (expressed as 55 lb/day). (SCAQMD, *Air Quality Analysis Handbook*, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook; then follow "SCAQMD Air Quality Significance Thresholds" hyperlink (last visited Apr. 1, 2015).) This is because the federal Clean Air Act defines a "major" stationary source for "extreme" ozone nonattainment areas such as SCAQMD as one emitting 10 tons/year. (42 U.S.C. §§ 7511a(e), 7511a(f); CAA §§ 182(e), 182(f).) Under the Clean Air Act, such sources are subject to enhanced control requirements (42 U.S.C. §§ 7502(c)(5), 7503; CAA §§ 172(c)(5), 173), so SCAQMD decided this was an appropriate threshold for making a CEQA "significance" finding and requiring feasible mitigation. Essentially, SCAQMD takes the position that a source that emits 10 tons/year of NO_x or VOC would contribute cumulatively to ozone formation. Therefore, lead agencies that use SCAQMD's thresholds of significance may determine

that many projects have "significant" air quality impacts and must apply all feasible mitigation measures, yet will not be able to precisely correlate the project to quantifiable health impacts, unless the emissions are sufficiently high to use a regional modeling program.

In the case of particulate matter ($PM_{2.5}$)[8], another "criteria" pollutant, SCAQMD staff is aware of two possible methods of analysis. SCAQMD used regional modeling to predict expected health impacts from its proposed Rule 1315, as mentioned above. Also, the California Air Resources Board (CARB) has developed a methodology that can predict expected mortality (premature deaths) from large amounts of $PM_{2.5}$. (California Air Resources Board, *Health Impacts Analysis: PM Premature Death Relationship*, http://www.arb.ca.gov/research/health/pm-mort/pm-mort_arch.htm (last reviewed Jan. 19, 2012).) SCAQMD used the CARB methodology to predict impacts from three very large power plants (e.g., 731-1837 lbs/day). (Final Environmental Assessment for Rule 1315, *supra*, pp 4.0-12, 4.1-13, 4.1-37 (e.g., 125 premature deaths in the entire SCAQMD in 2030), 4.1-39 (0.05 to 1.77 annual premature deaths from power plants.) Again, this project involved large amounts of additional $PM_{2.5}$ in the District, up to 2.82 tons/day (5,650 lbs/day of $PM_{2.5}$, or, or 1029 tons/year. (*Id.* at table 4.1-4, p. 4.1-10.)

However, the primary author of the CARB methodology has reported that this $PM_{2.5}$ health impact methodology is not suited for small projects and may yield unreliable results due to various uncertainties.[9] (SCAQMD, *Final Subsequent Mitigated Negative Declaration for: Warren*

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[8] SCAQMD has not attained the latest annual or 24-hour national ambient air quality standards for "$PM_{2.5}$" or particulate matter less than 2.5 microns in diameter.

[9] Among these uncertainties are the representativeness of the population used in the methodology, and the specific source of PM and the corresponding health impacts. (*Id.* at p. 2-24.)

E&P, Inc. WTU Central Facility, New Equipment Project (certified July 19, 2011), http://www.aqmd.gov/home/library/documents-support-material/lead-agency-permit-projects/permit-project-documents---year-2011; then follow "Final Subsequent Mitigated Negative Declaration for Warren E&P Inc. WTU Central Facility, New Equipment Project" hyperlink, pp. 2-22, 2-23 (last visited Apr. 1, 2015).) Therefore, when SCAQMD prepared a CEQA document for the expansion of an existing oil production facility, with very small $PM_{2.5}$ increases (3.8 lb/day) and a very small affected population, staff elected not to use the CARB methodology for using estimated $PM_{2.5}$ emissions to derive a projected premature mortality number and explained why it would be inappropriate to do so. (*Id.* at pp 2-22 to 2-24.) SCAQMD staff concluded that use of this methodology for such a small source could result in unreliable findings and would not provide meaningful information. (*Id.* at pp. 2-23, 2-25.) This CEQA document was not challenged in court.

In the above case, while it may have been technically possible to plug the data into the methodology, the results would not have been reliable or meaningful. SCAQMD believes that an agency should not be required to perform analyses that do not produce reliable or meaningful results. This Court has already held that an agency may decline to use even the "normal" "existing conditions" CEQA baseline where to do so would be misleading or without informational value. (*Neighbors for Smart Rail v. Exposition Metro Line* (2013) 57 Cal.4th 439, 448, 457.) The same should be true for a decision that a particular study or analysis would not provide reliable or meaningful results.[10]

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[10] Whether a particular study would result in "informational value" is a part of deciding whether it is "feasible." CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and

Therefore, it is not possible to set a hard-and-fast rule on whether a correlation of air quality impacts with specific quantifiable health impacts is required in all cases. Instead, the result turns on whether such an analysis is reasonably feasible in the particular case.[11] Moreover, what is reasonably feasible may change over time as scientists and regulatory agencies continually seek to improve their ability to predict health impacts. For example, CARB staff has been directed by its Governing Board to reassess and improve the methodology for estimating premature deaths. (California Air Resources Board, *Health Impacts Analysis: PM Mortality Relationship*, http://www.arb.ca.gov/research/health/pm-mort/pm-mort.htm (last reviewed Dec. 29, 2010).) This factor also counsels against setting any hard-and-fast rule in this case.

III. THE QUESTION OF WHETHER AN EIR CONTAINS SUFFICIENT ANALYSIS TO MEET CEQA'S REQUIREMENTS IS A MIXED QUESTION OF FACT AND LAW GOVERNED BY TWO DIFFERENT STANDARDS OF REVIEW.

A. Standard of Review for Feasibility Determination and Sufficiency as an Informative Document

A second issue in this case is whether courts should review an EIR's informational sufficiency under the "substantial evidence" test as argued by Friant Ranch or the "independent judgment" test as argued by Sierra Club.

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technological factors." (Pub. Resources Code § 21061.1.) A study cannot be "accomplished in a *successful* manner" if it produces unreliable or misleading results.

[11] In this case, the lead agency did not have an opportunity to determine whether the requested analysis was feasible because the comment was non-specific. Therefore, SCAQMD suggests that this Court, after resolving the legal issues in the case, direct the Court of Appeal to remand the case to the lead agency for a determination of whether the requested analysis is feasible. Because Fresno County, the lead agency, did not seek review in this Court, it seems likely that the County has concluded that at least some level of correlation of air pollution with health impacts is feasible.

As this Court has explained, "a reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts." (*Vineyard Area Citizens v. City of Rancho Cordova, supra,* 40 Cal.4th at 435.) For questions regarding compliance with proper procedure or other legal questions, courts review an agency's action de novo under the "independent judgment" test. (*Id.*) On the other hand, courts review factual disputes only for substantial evidence, thereby "accord[ing] greater deference to the agency's substantive factual conclusions." (*Id.*)

Here, Friant Ranch and Sierra Club agree that the case involves the question of whether an EIR includes sufficient information regarding a project's impacts. However, they disagree on the proper standard of review for answering this question: Sierra Club contends that courts use the independent judgment standard to determine whether an EIR's analysis is sufficient to meet CEQA's informational purposes,[12] while Friant Ranch contends that the substantial evidence standard applies to this question.

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[12] Sierra Club acknowledges that courts use the substantial evidence standard when reviewing predicate factual issues, but argues that courts ultimately decide as a matter of law what CEQA requires. (Answering Brief, pp. 14, 23.)

SCAQMD submits that the issue is more nuanced than either party contends. We submit that, whether a CEQA document includes sufficient analysis to satisfy CEQA's informational mandates is a mixed question of fact and law,[13] containing two levels of inquiry that should be judged by different standards.[14]

The state CEQA Guidelines set forth standards for the adequacy of environmental analysis. Guidelines Section 15151 states:

> An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

In this case, the basic question is whether the underlying analysis of air quality impacts made the EIR "sufficient" as an informative document. However, whether the EIR's analysis was sufficient is judged in light of what was reasonably feasible. This represents a mixed question of fact and law that is governed by two different standards of review.

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[13] Friant Ranch actually states that the claim that an EIR lacks sufficient relevant information is, "most properly thought of as raising mixed questions of fact and law." (Opening Brief, p. 27.) However, the remainder of its argument claims that the court should apply the substantial evidence standard of review to all aspects of the issue.

[14] Mixed questions of fact and law issues may implicate predominantly factual subordinate questions that are reviewed under the substantial evidence test even though the ultimate question may be reviewed by the independent judgment test. *Crocker National Bank v. City and County of San Francisco* (1989) 49 Cal.3d 881, 888-889.

SCAQMD submits that an EIR's sufficiency as an informational document is ultimately a legal question that courts should determine using their independent judgment. This Court's language in *Laurel Heights I* supports this position. As this Court explained: "The court does not pass upon the correctness of the EIR's environmental conclusions, but only upon its *sufficiency as an informative document*." (*Laurel Heights I, supra*, 47 Cal.3d at 392-393) (emphasis added.) As described above, the Court in *Vineyard Area Citizens v. City of Rancho Cordova, supra,* 40 Cal.4th at 431, also used its independent judgment to determine what level of analysis CEQA requires for water supply impacts. The Court did not defer to the lead agency's opinion regarding the law's requirements; rather, it determined for itself what level of analysis was necessary to meet "[t]he law's informational demands." (*Id.* at p. 432.) Further, existing case law also holds that where an agency fails to comply with CEQA's information disclosure requirements, the agency has "failed to proceed in the manner required by law." (*Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118.)

However, whether an EIR satisfies CEQA's requirements depends in part on whether it was reasonably feasible for an agency to conduct additional or more thorough analysis. EIRs must contain "a detailed statement" of a project's impacts (Pub. Res. Code § 21061), and an agency must "use its best efforts to find out and disclose all that it reasonably can." (CEQA Guidelines § 15144.) Nevertheless, "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." (CEQA Guidelines § 15151.)

SCAQMD submits that the question of whether additional analysis or a particular study suggested by a commenter is "feasible" is generally a question of fact. Courts have already held that whether a particular alternative is "feasible" is reviewed by the substantial evidence test.

(*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 598-99; *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, 883.) Thus, if a lead agency determines that a particular study or analysis is infeasible, that decision should generally be judged by the substantial evidence standard. However, SCAQMD urges this Court to hold that lead agencies must explain the basis of any determination that a particular analysis is infeasible in the EIR itself. An EIR must discuss information, including issues related to the feasibility of particular analyses "in sufficient detail to enable meaningful participation and criticism by the public. '[W]hatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.'" (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 405 (quoting *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831) (discussing analysis of alternatives).) The evidence on which the determination is based should also be summarized in the EIR itself, with appropriate citations to reference materials if necessary. Otherwise commenting agencies such as SCAQMD would be forced to guess where the lead agency's evidence might be located, thus thwarting effective public participation.

Moreover, if a lead agency determines that a particular study or analysis would not result in reliable or useful information and for that reason is not feasible, that determination should be judged by the substantial evidence test. (See *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority*, *supra*, 57 Cal.4th 439, 448, 457:

whether "existing conditions" baseline would be misleading or uninformative judged by substantial evidence standard.[15])

If the lead agency's determination that a particular analysis or study is not feasible is supported by substantial evidence, then the agency has not violated CEQA's information disclosure provisions, since it would be infeasible to provide additional information. This Court's decisions provide precedent for such a result. For example, this Court determined that the issue of whether the EIR should have included a more detailed discussion of future herbicide use was resolved because substantial evidence supported the agency's finding that "the precise parameters of future herbicide use could not be predicted." *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 955.

Of course, SCAQMD expects that courts will continue to hold lead agencies to their obligations to consult with, and not to ignore or misrepresent, the views of sister agencies having special expertise in the area of air quality. (*Berkeley Keep Jets Over the Bay v. Board of Port Commissioners* (2007) 91 Cal.App.4th 1344, 1364 n.11.) In some cases, information provided by such expert agencies may establish that the purported evidence relied on by the lead agency is not in fact "substantial". (*Id.* at pp. 1369-1371.)

In sum, courts retain ultimate responsibility to determine what CEQA requires. However, the law does not require exhaustive analysis, but only what is reasonably feasible. Agencies deserve deference for their factual determinations regarding what type of analysis is reasonably feasible. On the other hand, if a commenter requests more information, and the lead agency declines to provide it but does *not* determine that the

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[15] The substantial evidence standard recognizes that the courts "have neither the resources nor the scientific expertise" to weigh conflicting evidence on technical issues. (*Laurel Heights I, supra,* 47 Cal.3d 376, 393.)

requested study or analysis would be infeasible, misleading or uninformative, the question becomes whether the omission of that analysis renders the EIR inadequate to satisfy CEQA's informational purposes. (*Id.* at pp. 1370-71.) Again, this is predominantly a question of law and should be judged by the de novo or independent judgment standard of review. Of course, this Court has recognized that a "project opponent or reviewing court can always imagine some additional study or analysis that might provide helpful information. It is not for them to design the EIR. That further study...might be helpful does not make it necessary." (*Laurel Heights I, supra,* 47 Cal.3d 376, 415 – see also CEQA Guidelines § 15204(a) [CEQA "does not require a lead agency to conduct every test. . . recommended or demanded by commenters."].) Courts, then, must adjudicate whether an omission of particular information renders an EIR inadequate to serve CEQA's informational purposes.[16]

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[16] We recognize that there is case law stating that the substantial evidence standard applies to "challenges to the scope of an EIR's analysis of a topic" as well as the methodology used and the accuracy of the data relied on in the document "because these types of challenges involve factual questions." (*Bakersfield Citizens for Local Control v. City of Bakersfield, supra,* 124 Cal.App.4th 1184, 1198, and cases relied on therein.) However, we interpret this language to refer to situations where the question of the scope of the analysis really is factual—that is, where it involves whether further analysis is feasible, as discussed above. This interpretation is supported by the fact that the *Bakersfield* court expressly rejected an argument that a claimed "omission of information from the EIR should be treated as inquiries whether there is substantial evidence supporting the decision approving the project. " *Bakersfield, supra,* 124 Cal.App.4th at p. 1208. And the *Bakersfield* court ultimately decided that the lead agency must analyze the connection between the identified air pollution impacts and resulting health impacts, even though the EIR already included some discussion of air-pollution-related respiratory illnesses. *Bakersfield, supra,* 124 Cal.App.4th at p. 1220. Therefore, the court must not have interpreted this question as one of the "scope of the analysis" to be judged by the substantial evidence standard.

B. Friant Ranch's Rationale for Rejecting the Independent Judgment Standard of Review is Unsupported by Case Law.

In its brief, Friant Ranch makes a distinction between cases where a required CEQA topic is not discussed at all (to be reviewed by independent judgment as a failure to proceed in the manner required by law) and cases where a topic is discussed, but the commenter claims the information provided is insufficient (to be judged by the substantial evidence test). (Opening Brief, pp. 13-17.) The Court of Appeal recognized these two types of cases, but concluded that both raised questions of law. (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 (superseded by grant of review) 172 Cal.Rptr.3d 271, 290.) We believe the distinction drawn by Friant Ranch is unduly narrow, and inconsistent with cases which have concluded that CEQA documents are insufficient. In many instances, CEQA's requirements are stated broadly, and the courts must interpret the law to determine what level of analysis satisfies CEQA's mandate for providing meaningful information, even though the EIR discusses the issue to some extent.

For example, the CEQA Guidelines require discussion of the existing environmental baseline. In *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 954-955, the lead agency had discussed the environmental baseline by describing historic month-end water levels in the affected lakes. However, the court held that this was not an adequate baseline discussion because it failed to discuss the timing and amounts of past actual water releases, to allow comparison with the proposed project. The court evidently applied the independent judgment test to its decision, even though the agency discussed the issue to some extent.

Likewise, in *Vineyard Area Citizens* (2007) 40 Cal.4th 412, this Court addressed the question of whether an EIR's analysis of water supply impacts complied with CEQA. The parties agreed that the EIR was required to analyze the effects of providing water to the development project, "and that in order to do so the EIR had, in some manner, to identify the planned sources of that water." (*Vineyard Area Citizens, supra,* at p. 428.) However, the parties disagreed as to the level of detail required for this analysis and "what level of uncertainty regarding the availability of water supplies can be tolerated in an EIR . . . ." (*Id.*) In other words, the EIR had analyzed water supply impacts for the project, but the petitioner claimed that the analysis was insufficient.

This Court noted that neither CEQA's statutory language or the CEQA Guidelines specifically addressed the question of how precisely an EIR must discuss water supply impacts. (*Id.*) However, it explained that CEQA "states that '[w]hile foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can.'" (*Id.*, [Guidelines § 15144].) The Court used this general principle, along with prior precedent, to elucidate four "principles for analytical adequacy" that are necessary in order to satisfy "CEQA's informational purposes." (*Vineyard Area Citizens, supra,* at p. 430.) The Court did not defer to the agency's determination that the EIR's analysis of water supply impacts was sufficient. Rather, this Court used its independent judgment to determine for itself the level of analysis required to satisfy CEQA's fundamental purposes. (*Vineyard Area Citizens, supra*, at p. 441: an EIR does not serve its purposes where it neglects to explain likely sources of water and "... leaves long term water supply considerations to later stages of the project.")

Similarly, the CEQA Guidelines require an analysis of noise impacts of the project. (Appendix G, "Environmental Checklist Form."[17]) In *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1123, the court held that the lead agency's noise impact analysis was inadequate even though it had addressed the issue and concluded that the increase would not be noticeable. If the court had been using the substantial evidence standard, it likely would have upheld this discussion.

Therefore, we do not agree that the issue can be resolved on the basis suggested by Friant Ranch, which would apply the substantial evidence standard to *every* challenge to an analysis that addresses a required CEQA topic. This interpretation would subvert the courts' proper role in interpreting CEQA and determining what the law requires.

Nor do we agree that the Court of Appeal in this case violated CEQA's prohibition on courts interpreting its provisions "in a manner which imposes procedural or substantive requirements beyond those explicitly stated in this division or in the state guidelines." (Pub. Resources Code § 21083.1.) CEQA requires an EIR to describe *all* significant impacts of the project on the environment. (Pub. Resources Code § 21100(b)(2); *Vineyard Area Citizens, supra,* at p. 428.) Human beings are part of the environment, so CEQA requires EIRs to discuss a project's significant impacts on human health. However, except in certain particular circumstances,[18] neither the CEQA statute nor Guidelines specify the precise level of analysis that agencies must undertake to satisfy the law's requirements. (see, e.g., CEQA Guidelines § 15126.2(a) [EIRs must describe "health and safety problems caused by {a project's} physical changes"].) Accordingly, courts must interpret CEQA as a whole to

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[17] Association of Environmental Professionals, 2015 CEQA Statute and Guidelines (2015) p.287.

[18] E.g., Pub. Resources Code § 21151.8(C)(3)(B)(iii) (requiring specific type of health risk analysis for siting schools).

determine whether a particular EIR is sufficient as an informational document. A court determining whether an EIR's discussion of human health impacts is legally sufficient does not constitute imposing a new substantive requirement.[19] Under Friant Ranch's theory, the above-referenced cases holding a CEQA analysis inadequate would have violated the law. This is not a reasonable interpretation.

IV. COURTS MUST SCRUPULOUSLY ENFORCE THE REQUIREMENTS THAT LEAD AGENCIES CONSULT WITH AND OBTAIN COMMENTS FROM AIR DISTRICTS

Courts must "scrupulously enforce" CEQA's legislatively mandated requirements. (*Vineyard Area Citizens, supra*, 40 Cal.4th 412, 435.) Case law has firmly established that lead agencies must consult with the relevant air pollution control district before conducting an initial study, and must provide the districts with notice of the intention to adopt a negative declaration (or EIR). (*Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 958.) As *Schenck* held, neither publishing the notice nor providing it to the State Clearinghouse was a sufficient substitute for sending notice directly to the air district. (*Id.*) Rather, courts "must be satisfied that [administrative] agencies have fully complied with the procedural requirements of CEQA, since only in this way can the important public purposes of CEQA be protected from subversion." *Schenck,* 198 Cal.App.4th at p. 959 (citations omitted).[20]

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[19] We submit that Public Resources Code Section 21083.1 was intended to prevent courts from, for example, holding that an agency must analyze economic impacts of a project where there are no resulting environmental impacts (see CEQA Guidelines § 15131) , or imposing new procedural requirements, such as imposing additional public notice requirements not set forth in CEQA or the Guidelines.

[20] Lead agencies must consult air districts, as public agencies with jurisdiction by law over resources affected by the project, *before* releasing an EIR. (Pub. Resources Code §§ 21104(a); 21153.) Moreover, air

Lead agencies should be aware, therefore, that failure to properly seek and consider input from the relevant air district constitutes legal error which may jeopardize their project approvals. For example, the court in *Fall River Wild Trout Foundation v. County of Shasta,* (1999) 70 Cal.App.4th 482, 492 held that the failure to give notice to a trustee agency (Department of Fish and Game) was prejudicial error requiring reversal. The court explained that the lack of notice prevented the Department from providing any response to the CEQA document. (*Id.* at p. 492.) It therefore prevented relevant information from being presented to the lead agency, which was prejudicial error because it precluded informed decision-making. (*Id.*)[21]

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districts should be considered "state agencies" for purposes of the requirement to consult with "trustee agencies" as set forth in Public Resources Code § 20180.3(a). This Court has long ago held that the districts are not mere "local agencies" whose regulations are superseded by those of a state agency regarding matters of statewide concern, but rather have concurrent jurisdiction over such issues. (*Orange County Air Pollution Control District v. Public Util. Com.* (1971) 4 Cal.3d 945, 951, 954.) Since air pollution is a matter of statewide concern, *Id* at 952, air districts should be entitled to trustee agency status in order to ensure that this vital concern is adequately protected during the CEQA process.

[21] In *Schenck,* the court concluded that failure to give notice to the air district was not prejudicial, but this was partly because the trial court had already corrected the error before the case arrived at the Court of Appeal. The trial court issued a writ of mandate requiring the lead agency to give notice to the air district. The air district responded by concurring with the lead agency that air impacts were not significant. (*Schenck,* 198 Cal.App.4th 949, 960.) We disagree with the *Schenck* court that the failure to give notice to the air district would not have been prejudicial (even in the absence of the trial court writ) merely because the lead agency purported to follow the air district's published CEQA guidelines for significance. (*Id.*, 198 Cal.App.4th at p. 960.) In the first place, absent notice to the air district, it is uncertain whether the lead agency properly followed those guidelines. Moreover, it is not realistic to expect that an air district's published guidelines would necessarily fully address all possible air-quality related issues that can arise with a CEQA project, or that those

Similarly, lead agencies must obtain additional information requested by expert agencies, including those with jurisdiction by law, if that information is necessary to determine a project's impacts. (*Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236-37.) Approving a project without obtaining that information constitutes a failure to proceed in the manner prescribed by CEQA. (*Id.* at p. 1236.)

Moreover, a lead agency can save significant time and money by consulting with the air district early in the process. For example, the lead agency can learn what the air district recommends as an appropriate analysis on the facts of its case, including what kinds of health impacts analysis may be available, and what models are appropriate for use. This saves the lead agency from the need to do its analysis all over again and possibly needing to recirculate the document after errors are corrected, if new significant impacts are identified. (CEQA Guidelines § 15088.5(a).) At the same time, the air district's expert input can help the lead agency properly determine whether another commenter's request for additional analysis or studies is reasonable or feasible. Finally, the air district can provide input on what mitigation measures would be feasible and effective.

Therefore, we suggest that this Court provide guidance to lead agencies reminding them of the importance of consulting with the relevant air districts regarding these issues. Otherwise, their feasibility decisions may be vulnerable to air district evidence that establishes that there is no substantial evidence to support the lead agency decision not to provide specific analysis. (*See Berkeley Keep Jets Over the Bay*, *supra*, 91 Cal.App.4th 1344, 1369-1371.)

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guidelines would necessarily be continually modified to reflect new developments. Therefore we believe that, had the trial court not already ordered the lead agency to obtain the air district's views, the failure to give notice would have been prejudicial, as in *Fall River, supra,* 70 Cal.App.4th 482, 492.

CONCLUSION

The SCAQMD respectfully requests this Court *not* to establish a hard-and-fast rule concerning whether CEQA requires a lead agency to correlate identified air quality impacts of a project with resulting health outcomes. Moreover, the question of whether an EIR is "sufficient as an informational document" is a mixed question of fact and law containing two levels of inquiry. Whether a particular proposed analysis is feasible is predominantly a question of fact to be judged by the substantial evidence standard of review. Where the requested analysis is feasible, but the lead agency relies on legal or policy reasons not to provide it, the question of whether the EIR is nevertheless sufficient as an informational document is predominantly a question of law to be judged by the independent judgment standard of review.

Respectfully submitted,

DATED: April 3, 2015

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT
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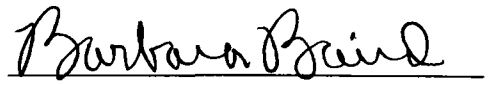
CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.520(c)(1) of the California Rules of Court, I hereby certify that this brief contains 8,476 words, including footnotes, but excluding the Application, Table of Contents, Table of Authorities, Certificate of Service, this Certificate of Word Count, and signature blocks. I have relied on the word count of the Microsoft Word Vista program used to prepare this Certificate.

DATED: April 3, 2015 Respectfully submitted,



Barbara Baird

PROOF OF SERVICE

I am employed in the County of Los Angeles, California. I am over the age of 18 years and not a party to the within action. My business address is 21865 Copley Drive, Diamond Bar, California 91765.

On April 3, 2015 I served true copies of the following document(s) described as **APPLICATION OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT FOR LEAVE TO FILE BRIEF OF *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY AND *[PROPOSED]* BRIEF OF *AMICUS CURIAE*** by placing a true copy of the foregoing document(s) in a sealed envelope addressed as set forth on the attached service list as follows:

BY MAIL: I enclosed the document(s) in a sealed envelope or package addressed to the persons at the addresses listed in the Service List and placed the envelope for collection and mailing following our ordinary business practices. I am readily familiar with this District's practice for collection and processing of correspondence for mailing. Under that practice, the correspondence would be deposited with the United States Postal Service, with postage thereon fully prepaid at Diamond Bar, California, in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on April 3, 2015 at Diamond Bar, California.

Patricia Anderson

Patricia Anderson

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Appendix C

Greenhouse Gas Analysis

Perris Gateway
(DPR22-00028; CUP 22-05295; TPM 38567)
GREENHOUSE GAS ANALYSIS
CITY OF PERRIS

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OCTOBER 13, 2023

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LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
2017 Scoping Plan	Final 2017 Scoping Plan Update
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation Landscaping Act of 2006
Annex I	Industrialized Nations
APA	Administrative Procedure Act
AQIA	*Perris Gateway Air Quality Impact Analysis*
BAU	Business as Usual
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
$C_2H_2F_4$	Tetrafluroethane
$C_2H_4F_2$	Ethylidene Fluoride
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	*Guidelines for Implementation of the California Environmental Quality Act*
CDFA	California Department of Food and Agriculture
CF_4	Tetrafluoromethane

CFC	Chlorofluorocarbons
CFC-113	Trichlorotrifluoroethane
CH_4	Methane
City	City of Perris
CNRA	California Natural Resources Agency
CNRA 2009	*2009 California Climate Adaptation Strategy*
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
Convention	United Nation's Framework Convention on Climate Change
COP	Conference of the Parties
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
DOF	Department of Finance
DWR	Department of Water Resources
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
EV	Electric Vehicle
FED	Functional Equivalent Document
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
GO-Biz	Governor's Office of Business and Economic Development
gpd	Gallons Per Day
gpm	Gallons Per Minute
GWP	Global Warming Potential
H_2O	Water
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
HFC-23	Fluoroform
HFC-134a	1,1,1,2-tetrafluoroethane
HFC-152a	1,1-difluoroethane
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
IBANK	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
ISO	Independent System Operator
ITE	Institute of Transportation Engineers

kWh	Kilowatt Hours
lbs	Pounds
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard or Executive Order S-01-07
LDA	Light-Duty Auto
LDT1/LDT2	Light-Duty Trucks
LEV III	Low-Emission Vehicle
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LULUCF	Land-Use, Land-Use Change and Forestry
MARB/IPA	March Air Reserve Base/Inland Port Airport
MCY	Motorcycles
MD	Medium Duty
MDT	Medium-Duty Trucks
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Tucks
MM	Mitigation Measures
MMR	Mandatory Reporting Rule
$MMTCO_2e$	Million Metric Ton of Carbon Dioxide Equivalent
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
$MMTCO_2e/yr$	Million Metric Ton of Carbon Dioxide Equivalent Per Year
MT/yr	Metric Tons Per Year
$MTCO_2e$	Metric Ton of Carbon Dioxide Equivalent
$MTCO_2e/yr$	Metric Ton of Carbon Dioxide Equivalent Per Year
MW	Megawatts
MWh	Megawatts Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2O	Nitrous Oxide
NDC	Nationally Determined Contributions
NF_3	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO_X	Nitrogen Oxides
Non-Annex I	Developing Nations
OAL	Office of Administrative Law

OPR	Office of Planning and Research
PFC	Perfluorocarbons
ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	Perris Gateway
PVCCSP	Perris Valley Commerce Center Specific Plan
PVCCSP EIR	*Perris Valley Commerce Center Specific Plan Environmental Impact Report SCH No. 2009081086*
RMC	Riverside Municipal Code
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SB 32	California Global Warming Solutions Act of 2006
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SB 1078	Renewable Portfolio Standards
SB 1368	Statewide Retail Provider Emissions Performance Standards
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
sf	Square Feet
SF_6	Sulfur Hexaflouride
SGC	Strategic Growth Council
SHGC	Solar Heat Gain Coefficient
SLPS	Short-Lived Climate Pollutant Strategy
SP	Service Population
SWCRB	State Water Resources Control Board
TA	*Perris Gateway Traffic Analysis*
TDM	Transportation Demand Measures
Title 20	Appliance Energy Efficiency Standards
Title 24	California Building Code
U.N.	United Nations
U.S.	United States

UNFCCC	United Nations' Framework Convention on Climate Change
URBEMIS	Urban Emissions
UTR	Utility Tractors
VFP	Vehicle Fueling Positions
VMT	Vehicle Miles Traveled
WCI	Western Climate Initiative
WRCOG	Western Riverside Council of Governments
WRI	World Resources Institute
ZE/NZE	Zero and Near-Zero Emissions
ZEV	Zero-Emissions Vehicles

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Perris Gateway Greenhouse Gas Analysis* (GHGA) is summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *Guidelines for Implementation of the California Environmental Quality Act* (*State CEQA Guidelines)* (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: Would the Project generate GHG emissions either directly or indirectly, that may have a significant impact on the environment?	3.7	*Potentially Significant*	*Significant and Unavoidable*
GHG Impact #2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	3.7	*Less Than Significant*	*n/a*

ES.2 REGULATORY REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill (SB) 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations (CCR)) and CALGreen standards. Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or

equivalent by January 1, 2010, to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020 (10).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).
- City of Perris Climate Action Plan (CAP) was completed in February 2016. The CAP was developed to reduce GHG emissions at the community level consistent with California's Mandated statewide reduction targets set forth by AB32.

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, AB 1493, LCFS, and RPS, and therefore are accounted for in the Project's emission calculations.

ES.3 Perris Valley Commerce Center Specific Plan (PVCCSP) Environmental Impact Report (PVCCSP EIR) Mitigation Measures

The Project site is located within the PVCCSP planning area. As such, and unless otherwise noted, the Project is required to comply with the following applicable *Perris Valley Commerce Center Specific Plan Environmental Impact Report SCH No.* 2009081086 mitigation measures (MMs) (12). The applicable PVCCSP EIR mitigation measures for air quality are shown below and are required for the Project. Additionally, these select measures, as disclosed in the EIR, would also reduce GHG emissions. As a conservative measure, to provide a worst-case disclosure of the Project's impacts, no reduction in emissions has been assumed from the following PVCCSP EIR mitigation measures.

MM Air 4

Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5

Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6

The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the

California Air Resources Board (CARB) in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or Environmental Protection Agency (EPA) certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNO_X unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM AIR 7

During construction, ozone (O_3) precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 14

Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance would be required prior to the issuance of occupancy permits.

For purposes of analysis, the GHG emissions estimates presented in this GHGA do not reflect emissions reductions that would result from implementation of this PVCCSP EIR mitigation measure.

MM Air 18

Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the Project sites shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of Americans with Disabilities Act (ADA)-compliant paths to the major building entrances in the project.

For purposes of analysis, the estimated Project-generated emissions presented in this AQIA do not reflect emission reductions that would occur with implementation of this PVCCSP EIR mitigation measure since emissions reductions from this measure are not readily quantifiable.

MM Air 19

In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the Project sites. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

For purposes of analysis, the GHG emissions estimates presented in this GHGA do not reflect emissions reductions that would result from implementation of this MM.

MM Air 20

Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15% beyond Title 24, and reduce indoor water use by 25%. All reductions would be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

For purposes of analysis, the GHG emissions estimates presented in this GHGA do not reflect emissions reductions that would result from implementation of this MM.

ES.4 Additional Mitigation Measures

As stated in the *Perris Gateway Air Quality Impact Analysis Report* (AQIA) (Urban Crossroads, Inc.) (13), the City of Perris or the Project Applicant do not have regulatory authority to control mobile source (tailpipe) emissions, and no feasible MM beyond the measures identified above exist that would reduce GHG emissions to levels that are less-than-significant, thus these emissions are considered significant and unavoidable.

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1 INTRODUCTION

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the proposed Perris Gateway (Project). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the Project.

1.1 SITE LOCATION

The proposed Perris Gateway site is located on the northbound side of the 215 Freeway and Ramona Expressway within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCCSP) planning area as shown on Exhibit 1-A. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located less than one mile north of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 12,000 square feet of high-turnover sit-down restaurant use, 18,400 square feet of fast-food restaurant with drive-through window use, two gas stations totaling 32-vehicle fueling positions, an automated car wash with 1 tunnel, and 80,478 square feet of self-storage use. A preliminary site plan is shown on Exhibit 1-B. The Project is anticipated to be constructed in one phase by the year 2026.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: SITE PLAN

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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE (GCC)

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated (see Table 3-1 later in this report) because these gases are the primary contributors to GCC from development projects.

Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GHGS

GHGs	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop would continue is	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

GHGs	Description	Sources	Health Effects
	unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it would eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (14).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (15).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (16).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (17).

GHGs	Description	Sources	Health Effects
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (18).	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to elevated levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (19).

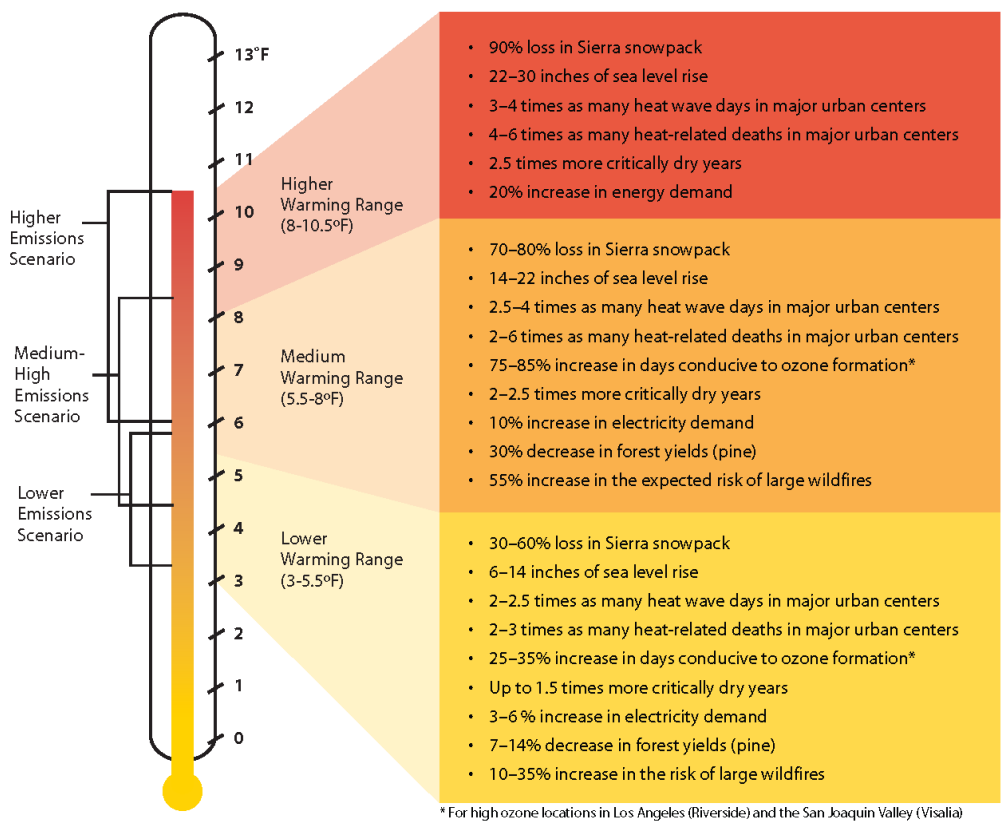
GHGs	Description	Sources	Health Effects
		bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (19).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs would remain in the atmosphere for over 100 years (20).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

GHGs	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HCF-134a emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have exceptionally long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (21). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

GHGs	Description	Sources	Health Effects
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (22).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (23).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport those higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change would likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (24). Exhibit 2-A presents the potential impacts of global warming (25).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas cause over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized in Table 2-2. As shown in the table below, GWP for the 2nd Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO_2 to 23,900 for SF_6 and GWP for the IPCC's 6th Assessment Report range from 1 for CO_2 to 25,200 for SF_6 (26).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2nd Assessment Report	6th Assessment Report
CO_2	Multiple	1	1
CH_4	11.8	21	28
N_2O	109	310	273
HFC-23	228	11,700	14,600
HFC-134a	14	1,300	1,526
HFC-152a	1.6	140	164
SF_6	3,200	23,900	25,200

Source: IPCC Second Assessment Report, 1995 and IPCC Sixth Assessment Report, 2022

2.5 GHG EMISSIONS INVENTORIES

2.5.1 GLOBAL

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2020. Based on the latest available data, the sum of these emissions totaled approximately 28,026,643 gigagram (Gg) CO_2e[1] (27) (28) as summarized on Table 2-3.

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2020 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014 and 2016, respectively.

2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2020.

TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION [2]

Emitting Countries	GHG Emissions (Gg CO_2e)
China	12,300,200
United States	5,981,354
European Union (27-member countries)	3,706,110
India	2,839,420
Russian Federation	2,051,437
Japan	1,148,122
Total	**28,026,643**

2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the United States (U.S.) emissions inventory total (29). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2022 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2020 GHG emissions period, California emitted an average 369.2 million metric tons of CO_2e per year ($MMTCO_2e/yr$) or 369,200 Gg CO_2e (6.17% of the total United States GHG emissions) (30).

2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. Based on *Our Changing Climate Assessing the Risks to California by the California Climate Change Center*, large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced (31).

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a

[2] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in https://www.climatewatchdata.org site to reference Non-Annex I countries of China and India.

significant increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

2.6.2 WATER RESOURCES

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

2.6.3 AGRICULTURE

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

2.6.4 Forests and Landscapes

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

2.6.5 Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.7 Regulatory Setting

2.7.1 International

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the UNFCCC, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

INTERNATIONAL CLIMATE CHANGE TREATIES

The Kyoto Protocol is an international agreement linked to the UNFCCC. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the UN Climate Change Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings gradually gained consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the UNFCCC reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they would "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly would not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a) (32).

Following President Biden's day one executive order, the United States officially rejoined the landmark Paris Agreement on February 19, 2021, positioning the country to once again be part of the global climate solution. Meanwhile, city, state, business, and civic leaders across the country and around the world have been ramping up efforts to drive the clean energy advances needed to meet the goals of the agreement and put the brakes on dangerous climate change.

2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the United States Supreme Court (Supreme Court) found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Supreme Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned

decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (33).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA, and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if

accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised (34). This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. On August 2,2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Rule). The SAFE Vehicles Rule was proposed to amend exiting Corporate Average Fuel Economy (CAFE) and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (35). In April, the U.S. EPA and National Highway Traffic Safety Administration's separately announced proposed rulemakings to repeal the previous administration's light-duty motor vehicle regulations that were part of the "The Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program" (SAFE 1). The comment period has closed, but no additional actions have been taken to date.

On March 31, 2022, NHTSA finalized CAFE standards for MY 2024-2026. The standards for passenger cars and light trucks for MYs 2024-2025 were increased at a rate of 8% per year and then increased at a rate of 10% per year for MY 2026 vehicles. NHTSA currently projects that the revised standards would require an industry fleet-wide average of roughly 49 mpg in MY 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings. These standards are directly responsive to the agency's statutory mandate to improve energy conservation and reduce the nation's energy dependence on foreign sources (36).

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities would be

required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources would be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO_2 per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016, the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

On January 19, 2021, the D.C. Circuit Court of Appeals ruled that the EPA's ACE Rule for GHG emissions from power plants rested on an erroneous interpretation of the CAA that barred EPA from considering measures beyond those that apply at and to an individual source. The court therefore vacated and remanded the ACE Rule and adopted a replacement rule which regulates CO_2 emissions from existing power plants, potentially again considering generation shifting and other measures to more aggressively target power sector emissions.

CAP-AND-TRADE

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N_2O Budget Trading Program and Clean Air Interstate Rule

in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32 requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SMARTWAY PROGRAM

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (37):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs would have to comply with the CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions, and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the

following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel would eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

EXECUTIVE ORDER 13990

On January 20, 2021, Federal agencies were directed to immediately review, and take action to address, Federal regulations promulgated and other actions taken during the last 4 years that conflict with national objectives to improve public health and the environment; ensure access to clean air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce greenhouse gas emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and employment.

2.7.3 CALIFORNIA

2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

SB 32

On September 8, 2016, Governor Brown signed SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative

committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (11).

2017 CARB SCOPING PLAN

In November 2017, CARB released the *Final 2017 Scoping Plan Update* (*2017 Scoping Plan*), which identifies the State's post-2020 reduction strategy. The *2017 Scoping Plan* reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks, and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The *2017 Scoping Plan* establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (38).

California's climate strategy would require contributions from all sectors of the economy, including the land base, and would include enhanced focus on zero and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries would further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the *2017 Scoping Plan* framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero-emission vehicles (ZEV) buses and trucks.
- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and HCF emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the *2017 Scoping Plan* acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the *2017 Scoping Plan* also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidence-based bright-line numeric thresholds—consistent with the *2017 Scoping Plan* and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and MMs that avoid or minimize project emissions to the degree feasible; or a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$ per year ($MTCO_2e/yr$), indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (39) (40).

2022 CARB SCOPING PLAN

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) (41). The 2022 Scoping Plan builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to "deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor." The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (CAP) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments. As stated in the Plan's executive summary:

> "The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on and accelerating carbon reduction programs that have been in place for a decade and a half. That means rapidly moving to zero-emission transportation; electrifying the cars, buses, trains, and trucks that now constitute California's single largest source of planet-warming pollution."
>
> "[A]pproval of this plan catalyzes a number of efforts, including the development of new regulations as well as amendments to strengthen regulations and programs already in place, not just at CARB but across state agencies."

Under the 2022 Scoping Plan, the State will lead efforts to meet the 2045 carbon neutrality goal through implementation of the following objectives:

- Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.
- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.
- Expand and complete planned networks of high-quality active transportation infrastructure.
- Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.
- Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.
- Authorize and implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.
- Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.
- Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.
- Prevent uncontrolled growth of autonomous vehicle (AV) VMT, particularly zero-passenger miles.
- Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.
- Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.
- Provide financial support for low-income and disadvantaged Californians' use of transit and new mobility services.
- Expand universal design features for new mobility services.
- Accelerate infill development in existing transportation-efficient places and deploy strategic resources to create more transportation-efficient locations.

- Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (RTP/SCS and RHNA) and local plans (e.g., general plans, zoning, and local transportation plans).
- Accelerate production of affordable housing in forms and locations that reduce VMT and affirmatively further fair housing policy objectives.
- Reduce or eliminate parking requirements (and/or enact parking maximums, as appropriate) and promote redevelopment of excess parking, especially in infill locations.
- Preserve and protect existing affordable housing stock and protect existing residents and businesses from displacement and climate risk.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): "…focuses primarily on climate action plans (CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting."

Additionally on Page 21 in Appendix D, CARB states: "The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential projects to address the housing crisis in a manner that simultaneously supports the State's GHG and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future." As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

CAP-AND-TRADE PROGRAM

The *2022 Scoping Plan* identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program would help put California on the path to meet its goal of achieving a 40% reduction in GHG emissions from 1990 levels by 2030. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap would be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and would decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25,000 $MTCO_2e$/yr must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$/yr "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or "MRR").

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year (42).

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the *First Update to the Climate Change Scoping Plan*:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative."* (43)

The Cap-and-Trade Program covers approximately 80% of California's GHG emissions (38). The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

THE SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008 (SB 375)

Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the

following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in about a 22% reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30% reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EVs (EV) and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key

provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

2.7.3.2 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER B-55-18

Executive Order B-55-18 was signed by Governor Brown on September 10, 2018. The order establishes an additional Statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

EXECUTIVE ORDER S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

EXECUTIVE ORDER S-01-07 (LCFS)

Governor Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. CARB adopted the LCFS on April 23, 2009.

The LCFS was challenged in the U.S. District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012, pending final ruling on appeal, allowing CARB to continue to implement and enforce the regulation. The Ninth Circuit Court's decision, filed September 18, 2013, vacated the preliminary injunction. In essence, the court held that LCFS adopted by CARB were not in conflict with federal law. On August 8, 2013, the Fifth District Court of Appeal (California) ruled CARB failed to comply with CEQA and the Administrative Procedure Act (APA) when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal reversed the trial court's judgment and directed issuance of a writ of mandate setting aside Resolution 09-31 and two executive orders of CARB approving LCFS regulations promulgated to reduce GHG emissions. However, the court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while CARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify, and streamline program operations, and enhance enforcement. On November 16, 2015, the Office of Administrative Law (OAL) approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

In 2018, CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (44).

EXECUTIVE ORDER S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the *2009 California Climate Adaptation Strategy* (*CNRA 2009*) was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

On April 29, 2015, Governor Brown issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligned

California's GHG reduction targets with those of leading international governments ahead of the U.N. Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the *2017 Scoping Plan* to express the 2030 target in terms of $MMTCO_2e$. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable as to local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR SECTIONS 1601 ET SEQ. – APPLIANCE EFFICIENCY REGULATIONS

The Appliance Efficiency Regulations regulate the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles (RV) or other mobile equipment (CEC 2012).

TITLE 24 CCR PART 6 – CALIFORNIA ENERGY CODE

The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods.

TITLE 24 CCR PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and

reduce GHG emissions by 10 million metric tons (45). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (46):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed

0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).

- Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
- Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

MWELO

The MWELO was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed DWR to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015, effective December 15, 2015. New development projects that include landscape areas of 500 sf or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Reporting requirements for local agencies.

CARB REFRIGERANT MANAGEMENT PROGRAM

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

SB 97 AND THE CEQA GUIDELINES UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)."

In 2012, Public Resources Code Section 21083.05 was amended to state:

> *"The Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption, to incorporate new information or criteria established by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code."*

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *State CEQA Guidelines* for implementing CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *State CEQA Guidelines* to reference climate change.

Section 15064.4 was added the *State CEQA Guidelines* and states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively insignificant compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers

most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (1).

CALIFORNIA RPS PROGRAM (SB 100)

Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

2.7.4 REGIONAL

The project is within the SCAB, which is under the jurisdiction of the SCAQMD.

SCAQMD

The SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, the SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. In December 2008, the SCAQMD adopted an interim 10,000 $MTCO_2e$ per year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. The Working Group has also developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, which could be considered for residential and general development projects. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses. however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
    - Residential and commercial land use: 3,000 $MTCO_2e$/yr
    - Industrial land use: 10,000 $MTCO_2e$/yr
    - Based on land use type: residential: 3,500 $MTCO_2e$/yr; commercial: 1,400 $MTCO_2e$/yr; or mixed use: 3,000 $MTCO_2e$/yr
- Tier 4 has the following options:
    - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$ per SP per year for projects and 6.6 $MTCO_2e$ per SP per year for plans;
    - Option 3, 2035 target: 3.0 $MTCO_2e$ per SP per year for projects and 4.1 $MTCO_2e$ per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

The thresholds identified above have not been adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain.

The SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.

- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD would fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

The SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

CITY OF PERRIS CLIMATE ACTION PLAN (CAP)

The City of Perris CAP was adopted by the City Council (Resolution Number 4966) on February 23, 2016 (47). The CAP was developed to address global climate change through the reduction of harmful GHG emissions at the community level, and as part of California's mandated statewide GHG emissions reduction goals under AB 32. Perris's CAP, including the GHG inventories and forecasts contained within, is based on WRCOG's Subregional CAP. The Perris CAP utilized WRCOG's analysis of existing GHG reduction programs and policies that have already been implemented in the subregion and applicable best practices from other regions to assist in meeting the 2020 subregional reduction target. The CAP reduction measures chosen for the City's CAP were based on their GHG reduction potential, cost-benefit characteristics, funding availability, and feasibility of implementation in the City of Perris. The CAP used an inventory base year of 2010 and included emissions from the following sectors: residential energy, commercial/industrial energy, transportation, waste, and wastewater. The CAP's 2020 reduction target is 15% below 2010 levels, and the 2035 reduction target is 47.5% below 2010 levels. The City of Perris is expected to meet these reduction targets through implementation of statewide and local measures. Beyond 2020, Executive Order S-03-05 calls for a reduction of GHG emissions to a level 80% below 1990 levels by 2050.

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3 PROJECT GHG IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (1):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

3.2.1 THRESHOLDS OF SIGNIFICANCE

The City of Perris has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. A screening threshold of 3,000 $MTCO_2e$/yr to determine if additional analysis is required is an acceptable approach for small projects. This approach is a widely accepted screening threshold used by the City of Perris and numerous cities in the South Coast Air Basin and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* ("SCAQMD Interim GHG Threshold"). The SCAQMD Interim GHG Threshold identifies a screening threshold to determine whether additional analysis is required (48). As noted by the SCAQMD:

> *"…the…screening level for stationary sources is based on an emission capture rate of 90% for all new or modified projects...the policy objective of [SCAQMD's] recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90% of all new or modified stationary source projects. A GHG significance threshold based on a 90% emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90% emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that [SCAQMD] staff estimates that these GHG emissions would account for slightly less than 1% of future 2050 statewide GHG emissions target (85 [$MMTCO_2e$/yr]). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their*

> *overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to [Best Available Control Technology] (BACT) for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility."* (49)

Thus, and based on guidance from the SCAQMD, if a non-industrial project would emit GHGs less than 3,000 $MTCO_2e$ per year, the project is not considered a substantial GHG emitter and the GHG impact is less than significant, requiring no additional analysis and no mitigation. On the other hand, if a non-industrial project would emit GHGs in excess of 3,000 $MTCO_2e$/yr, then the project could be considered a substantial GHG emitter, requiring additional analysis and potential mitigation.

As previously discussed, a screening threshold of 3,000 $MTCO_2e$/yr is an acceptable approach for small projects to determine if additional analysis is required and is therefore applied for this Project.

3.3 MODELS EMPLOYED TO ANALYZE GHGS

3.3.1 CALEEMOD

In May 2023 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod Version 2022.1.1.12. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from MMs (50). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 3.1 through 3.2. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water, and refrigerants.

3.4 LIFE-CYCLE ANALYSIS NOT REQUIRED

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time (51). Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the Project development, infrastructure, and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, an LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood, or documented, and would be challenging to mitigate (52). Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

Project construction actvities would generate CO_2 and CH_4 emissions The report *Perris Gateway Air Quality Impact Analysis Report* (AQIA) contains detailed information regarding Project construction activities (53). As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

3.5.1 CONSTRUCTION DURATION

For purposes of analysis, construction of the Project is expected to last approximately 19 months, commencing in October 2024 and being completed in May 2026. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per the State *CEQA Guidelines* (1).

3.5.2 CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-3 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the City's Municipal Code, Section 7.34.060 (Appendix 3.1) (54). It should be noted that PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards.

TABLE 3-2: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Days
Site Preparation	10/1/2024	10/14/2024	10
Grading	10/15/2024	12/2/2024	35
Building Construction	12/3/2024	5/4/2026	370
Paving	10/28/2025	5/4/2026	135
Architectural Coating	10/28/2025	5/4/2026	135

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment[1]	Amount	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

3.5.3 CONSTRUCTION EMISSIONS SUMMARY

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions (55). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3-4.

TABLE 3-4: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e[3]
2024	171.93	0.01	0.00	0.03	172.93
2025	502.34	0.02	0.02	0.23	507.99

[3] CalEEMod reports the most common GHGs emitted which include CO_2, CH_4, and N_2O. These GHGs are then converted into the CO_2e by multiplying the individual GHG by the GWP.

Year	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e[3]
2026	236.12	0.01	0.01	0.09	238.34
Total GHG Emissions	910.38	0.03	0.03	0.35	919.26
Amortized Construction Emissions	**30.35**	**1.16E-03**	**8.57E-04**	**1.17E-02**	**30.64**

Source CalEEMod annual construction-source emissions are presented in Appendix 3.1.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Water Supply, Treatment, and Distribution
- Solid Waste
- Refrigerants

3.6.1 AREA SOURCE EMISSIONS

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

3.6.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.6.3 MOBILE SOURCE EMISSIONS

The Project GHG emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site associated with the proposed uses. Trip characteristics

available from the *Perris Gateway Traffic Analysis* (TA) were utilized in this analysis (56). Per the *Perris Gateway Traffic Analysis*, the proposed Project is expected to generate approximately 14,394 total trips per day.

3.6.4 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

The Project includes the construction and operation of a 5,425-sf automated car wash. Water usage for the car wash has been estimated based on the *Water Use, Evaporation and Carryout Conveyor Car Washes* (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle (57). This GHGA assumes that the car wash will service approximately 554 vehicles per day[4] (based on the trip generation estimates from the Project's traffic study). This assumption likely overstates the Project car wash water use because not all vehicles generated by the car wash would necessarily be washed (e.g., employee trips, vendor trips, etc.) . On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.

3.6.5 SOLID WASTE

The proposed land uses will result in the generation and disposal of solid waste. A percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by CalEEMod using default parameters.

3.6.6 REFRIGERANTS

Air conditioning (A/C) and refrigeration equipment associated with the building are anticipated to generate GHG emissions. CalEEMod automatically generates a default A/C and refrigeration equipment inventory for each project land use subtype based on industry data from the USEPA (2016b). CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Note that CalEEMod does not quantify emissions from the disposal of refrigeration and A/C equipment at the end of its lifetime. Per 17 CCR 95371, new facilities with refrigeration equipment containing more than 50 pounds of refrigerant are prohibited from utilizing refrigerants with a GWP of 150 or greater as of January 1, 2022. As such, it was conservatively assumed that refrigeration systems installed at the commercial uses of Project

[4] The proposed Project's carwash use is expected to generate 554 total trips. For analytical purposes, this GHGA assumes that 277 cars (227 two-way trips is 554 cars) are vehicles that will be serviced by the car wash.

would utilize refrigerants with a GWP of 150. Otherwise, GHG emissions associated with refrigerants were calculated by CalEEMod using default parameters.

3.6.7 EMISSIONS SUMMARY

The annual GHG emissions associated with the Project are summarized in Table 3-5. As shown in Table 3-5, construction and operation of the Project would generate a total of approximately 25,029.45 $MTCO_2e$/yr.

TABLE 3-5: PROJECT GHG EMISSIONS

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	Refrigerants	Total CO_2e
Annual construction-related emissions amortized over 30 years	30.35	1.16E-03	8.57E-04	1.17E-02	30.64
Mobile Source	23,779.81	0.97	1.13	37.71	24,177.00
Area Source	2.56	0.00	0.00	0.00	2.57
Energy Source	571.33	0.05	0.00	0.00	573.78
Water Usage	43.97	1.03	0.02	0.00	77.26
Waste	41.46	4.14	0.00	0.00	145.06
Refrigerants	0.00	0.00	0.00	23.13	23.13
Total CO_2e (All Sources)	**25,029.45**				

Source: CalEEMod output, See Appendix 3.2 for detailed model outputs.

3.7 GHG EMISSIONS FINDINGS AND RECOMMENDATIONS

3.7.1 GHG IMPACT 1

Potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.

The Project will result in approximately 852.45 $MTCO_2e$/yr from construction, area, energy, water usage, waste and refrigerants. In addition, the Project has the potential to result in an additional 24,177 $MTCO_2e$/yr from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 25,029.45 $MTCO_2e$/yr and would exceed the 3,000 $MTCO_2e$/yr threshold of significance used for this analysis. The City of Perris or the Project Applicant do not have regulatory authority to control mobile source (tailpipe) emissions, and no feasible MM beyond the measures identified above exist that would reduce GHG emissions to levels that are less-than-significant, thus these emissions are considered significant and unavoidable. The Project would have the potential to result in a cumulatively considerable impact with respect to GHG emissions.

While the proposed Project will implement the mitigation measures discussed in Sections ES.3 in this report, as a conservative measure the GHG emissions presented in this report do not reflect emissions reductions that would result from the implementation of these mitigation measures.

However, it is likely that implementation of these measures will decrease Project emissions somewhat.

The Project would have the potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.

3.7.2 GHG IMPACT 2

The Project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As previously stated, pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (58). As such, the Project's consistency with the 2022 Scoping Plan, is discussed below. It should be noted that the Project's consistency with the 2022 Scoping Plan also satisfies consistency with AB 32 since the 2022 Scoping Plan is based on the overall targets established by AB 32 and SB 32. Consistency with the 2008 and 2017 Scoping Plan is not necessary, since both of these plans have been superseded by the 2022 Scoping Plan. For reasons outlined herein, the proposed Project would result in a less than significant impact with respect to GHG emissions for GHG Impact #2.

2022 SCOPING PLAN CONSISTENCY

The Project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies the Project will comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the Low Carbon Fuel Standard. Further, the Project will implement PVCCSP EIR mitigation measures MM Air-4 through MM Air-20 which are discreet mitigation measures aimed at reducing GHG emissions. As noted in the analysis herein, compliance with these mitigation measures will ensure that the Project would be consistent with the Perris CAP through compliance with the PVCCSP EIR mitigation measures and regulatory requirements. PVCCSP EIR mitigation measure MM Air-18 will improve the local public transit network by accommodating future bus turnouts at locations established through consultation with the Riverside Transit Agency. Additionally, PVCCSP EIR mitigation measures MM Air-14 through MM-AQ-20 will further reduce Project GHG emissions and VMT, including increased implementation and availability of vehicle and equipment electrification, Transportation Demand Management programs, and optimization of vehicle access and activity. The Project would result in a less than significant VMT impact as further discussed in the Project-specific VMT analysis. As such, the Project would be consistent with the 2022 Scoping Plan.

CONSISTENCY WITH THE CITY'S CAP

The City of Perris adopted its CAP in February 2016. The measures identified in the CAP represent the City's actions to achieve the GHG reduction targets of AB 32 for target year 2020. Local measures incorporated in the CAP include:

- Energy measure that directs the City to create an energy action plan to reduce energy consumption citywide
- Land use and transportation measures that encourage alternative modes of transportation (walking, biking, and transit), reduce motor vehicle use by allowing a reduction in parking supply, voluntary transportation demand management to reduce vehicle miles traveled, and land use strategies that improve jobs-housing balance (increased density and mixed-use)
- Solid waste measures that reduce landfilled solid waste in the City

The Project would comply with the CAP through compliance with the PVCCSP EIR MMs identified previously, which would lessen the Project's contribution of GHG emissions from both construction and operation. The Project would not conflict with local strategies and state/regional strategies listed in the Perris CAP.

Further, the Project is subject to California Building Code requirements. New buildings must meet the applicable building code requirements and standards in place at the time building permit documentation submittals are made. CALGreen is updated on a regular basis, with the most recent approved 2022 California Green Building Code Standards effective on January 1, 2023. As construction of the Project is anticipated to be completed in 2026, it is presumed that the Project would be required to comply with the Title 24 standards in place at that time. While the Project does not include reduced parking, or increased density, it would provide sidewalks, bike racks, pedestrian walkways, a bus stop, and TDM measures to encourage the use of alternative modes of transportation (walking, biking, and transit). As such, the Project would not conflict with applicable GHG reduction measures in the CAP and a less than significant impact is expected to occur.

The Project would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

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5 CERTIFICATIONS

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed Perris Gateway Project. The information contained in this GHG report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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Master of Science in Environmental Studies
California State University, Fullerton • May 2010

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
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ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
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APPENDIX 3.1:
CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Construction) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Construction)
Construction Start Date	10/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	3.71	19.0	33.3	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,950	5,950	0.23	0.16	5.15	6,008
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.99	3.71	19.6	36.6	0.06	0.23	5.90	6.00	0.22	2.74	2.84	—	6,924	6,924	0.28	0.16	0.15	6,952
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.49	0.90	8.56	15.3	0.02	0.09	0.64	0.72	0.08	0.19	0.24	—	3,034	3,034	0.12	0.10	1.40	3,068
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.16	1.56	2.80	< 0.005	0.02	0.12	0.13	0.02	0.03	0.04	—	502	502	0.02	0.02	0.23	508

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.65	0.59	10.3	19.8	0.03	0.10	0.84	0.94	0.10	0.20	0.30	—	3,938	3,938	0.15	0.14	4.32	3,986
2026	0.99	3.71	19.0	33.3	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,950	5,950	0.23	0.16	5.15	6,008
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.91	0.90	19.6	36.6	0.06	0.18	5.90	6.00	0.18	2.74	2.84	—	6,924	6,924	0.28	0.14	0.12	6,952
2025	0.99	3.71	19.2	32.2	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,897	5,897	0.23	0.16	0.15	5,951
2026	0.97	3.69	19.1	31.9	0.05	0.23	1.17	1.39	0.22	0.28	0.50	—	5,865	5,865	0.20	0.16	0.13	5,918
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.14	0.14	2.88	5.42	0.01	0.03	0.49	0.52	0.03	0.19	0.21	—	1,038	1,038	0.04	0.02	0.18	1,044
2025	0.49	0.81	8.56	15.3	0.02	0.09	0.64	0.72	0.08	0.15	0.24	—	3,034	3,034	0.12	0.10	1.40	3,068
2026	0.24	0.90	4.64	7.80	0.01	0.05	0.28	0.34	0.05	0.07	0.12	—	1,426	1,426	0.05	0.04	0.54	1,440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.03	0.03	0.53	0.99	< 0.005	< 0.005	0.09	0.09	< 0.005	0.03	0.04	—	172	172	0.01	< 0.005	0.03	173
2025	0.09	0.15	1.56	2.80	< 0.005	0.02	0.12	0.13	0.02	0.03	0.04	—	502	502	0.02	0.02	0.23	508
2026	0.04	0.16	0.85	1.42	< 0.005	0.01	0.05	0.06	0.01	0.01	0.02	—	236	236	0.01	0.01	0.09	238

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,293	5,293	0.21	0.04	—	5,311
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.10	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	231	231	0.01	0.01	0.03	234
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.1	31.1	< 0.005	< 0.005	< 0.005	32.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.42	6.42	< 0.005	< 0.005	0.01	6.51
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.89
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.06	1.06	< 0.005	< 0.005	< 0.005	1.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.80	19.4	35.3	0.06	0.18	—	0.18	0.18	—	0.18	—	6,597	6,597	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	1.86	3.39	0.01	0.02	—	0.02	0.02	—	0.02	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.34	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.26	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	265	265	0.01	0.01	0.03	268
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.1	62.1	< 0.005	0.01	< 0.005	65.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.7	25.7	< 0.005	< 0.005	0.05	26.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.96	5.96	< 0.005	< 0.005	0.01	6.23
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.25	4.25	< 0.005	< 0.005	0.01	4.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.54	0.89	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	149	149	0.01	< 0.005	—	150
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.10	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.25	0.29	3.25	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	681	681	0.03	0.03	0.08	690
Vendor	0.03	0.02	0.70	0.21	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	590	590	0.01	0.09	0.04	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.2	39.2	< 0.005	< 0.005	0.07	39.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.5	33.5	< 0.005	0.01	0.04	35.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.48	6.48	< 0.005	< 0.005	0.01	6.58
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.54	5.54	< 0.005	< 0.005	0.01	5.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.25	6.77	11.2	0.02	0.07	—	0.07	0.06	—	0.06	—	1,879	1,879	0.08	0.02	—	1,885
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	1.24	2.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	311	311	0.01	< 0.005	—	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.23	0.23	3.98	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	726	726	0.03	0.03	2.67	737
Vendor	0.03	0.01	0.64	0.20	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	581	581	0.01	0.09	1.65	610
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.25	3.01	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	667	667	0.03	0.03	0.07	676
Vendor	0.03	0.01	0.67	0.20	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	582	582	0.01	0.09	0.04	608
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.27	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	483	483	0.02	0.02	0.82	490
Vendor	0.02	0.01	0.48	0.14	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	415	415	0.01	0.06	0.51	435
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.04	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	79.9	79.9	< 0.005	< 0.005	0.14	81.1
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.8	68.8	< 0.005	0.01	0.08	72.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.35	9.48	15.7	0.03	0.09	—	0.09	0.09	—	0.09	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	2.30	3.80	0.01	0.02	—	0.02	0.02	—	0.02	—	638	638	0.03	0.01	—	640
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.42	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	106	106	< 0.005	< 0.005	—	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.20	3.70	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	710	710	0.03	0.02	2.41	721
Vendor	0.03	0.01	0.61	0.19	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	572	572	0.01	0.09	1.56	600
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.21	0.23	2.81	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	653	653	0.01	0.03	0.06	661

Vendor	0.03	0.01	0.64	0.19	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	572	572	0.01	0.09	0.04	599
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.71	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.25	163
Vendor	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	< 0.005	0.02	0.16	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.6	26.6	< 0.005	< 0.005	0.04	26.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.0	23.0	< 0.005	< 0.005	0.03	24.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.03	0.92	1.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	192	192	0.01	< 0.005	—	193
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.0	25.0	< 0.005	< 0.005	0.04	25.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.14	4.14	< 0.005	< 0.005	0.01	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.75	2.57	< 0.005	0.02	—	0.02	0.02	—	0.02	—	367	367	0.01	< 0.005	—	368
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.32	0.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	60.7	60.7	< 0.005	< 0.005	—	60.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.7	46.7	< 0.005	< 0.005	0.07	47.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.74	7.74	< 0.005	< 0.005	0.01	7.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.18	0.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Architectural Coatings	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.76
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.60	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	0.01	0.01	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.03	17.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.85	2.85	< 0.005	< 0.005	< 0.005	2.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.35	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.2	43.2	< 0.005	< 0.005	—	43.3
Architectural Coatings	—	0.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.15	7.15	< 0.005	< 0.005	—	7.18
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.48	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.56	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.01	132
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.1	32.1	< 0.005	< 0.005	0.05	32.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.32	5.32	< 0.005	< 0.005	0.01	5.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	10/1/2024	10/14/2024	5.00	10.0	10
Grading	Grading	10/15/2024	12/2/2024	5.00	35.0	35
Building Construction	Building Construction	12/3/2024	5/4/2026	5.00	370	370
Paving	Paving	10/28/2025	5/4/2026	5.00	135	20
Architectural Coating	Architectural Coating	10/28/2025	5/4/2026	5.00	135	20

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45

Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	51.5	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	19.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	189,513	63,171	45,660

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	35.0	0.00	—
Grading	—	—	140	0.00	—
Paving	0.00	0.00	0.00	0.00	17.3

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
High Turnover (Sit Down Restaurant)	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Automobile Care Center	0.00	0%
Other Asphalt Surfaces	17.3	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6

Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074
Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827

Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5

Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0

Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces

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APPENDIX 3.2:
CALEEMOD PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Operations) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Operations)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	80.7	76.4	74.3	688	1.74	1.38	151	152	1.30	38.3	39.6	311	180,586	180,898	38.2	7.78	756	184,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	75.1	70.8	79.5	569	1.63	1.37	151	152	1.30	38.3	39.6	311	169,805	170,116	38.4	8.03	156	173,626
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	64.6	61.3	69.6	509	1.41	1.20	129	130	1.13	32.6	33.8	311	147,302	147,614	37.4	6.97	367	150,994
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.8	11.2	12.7	92.9	0.26	0.22	23.5	23.7	0.21	5.96	6.16	51.5	24,388	24,439	6.20	1.15	60.8	24,999

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	79.6	72.6	72.8	681	1.73	1.26	151	152	1.19	38.3	39.5	—	176,908	176,908	6.57	7.61	616	179,956
Area	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	80.7	76.4	74.3	688	1.74	1.38	151	152	1.30	38.3	39.6	311	180,586	180,898	38.2	7.78	756	184,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	74.9	67.9	78.1	568	1.62	1.26	151	152	1.19	38.3	39.5	—	166,149	166,149	6.80	7.86	16.0	168,678
Area	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	75.1	70.8	79.5	569	1.63	1.37	151	152	1.30	38.3	39.6	311	169,805	170,116	38.4	8.03	156	173,626

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.8	57.7	68.2	504	1.40	1.08	129	130	1.02	32.6	33.7	—	143,631	143,631	5.84	6.80	228	146,030
Area	0.67	3.47	0.03	3.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.5
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	64.6	61.3	69.6	509	1.41	1.20	129	130	1.13	32.6	33.8	311	147,302	147,614	37.4	6.97	367	150,994
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.6	10.5	12.4	92.0	0.26	0.20	23.5	23.7	0.19	5.96	6.14	—	23,780	23,780	0.97	1.13	37.7	24,177
Area	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Energy	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	571	571	0.05	< 0.005	—	574
Water	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3
Waste	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1
Total	11.8	11.2	12.7	92.9	0.26	0.22	23.5	23.7	0.21	5.96	6.16	51.5	24,388	24,439	6.20	1.15	60.8	24,999

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.66	0.60	0.60	5.65	0.01	0.01	1.25	1.26	0.01	0.32	0.33	—	1,467	1,467	0.05	0.06	5.11	1,493
High Turnover (Sit Down Restaurant)	5.58	5.09	5.10	47.7	0.12	0.09	10.6	10.7	0.08	2.69	2.77	—	12,400	12,400	0.46	0.53	43.2	12,614
Fast Food Restaurant with Drive Thru	37.0	33.8	33.9	317	0.81	0.59	70.3	70.9	0.55	17.8	18.4	—	82,345	82,345	3.06	3.54	287	83,764
Convenience Market with Gas Pumps	33.7	30.8	30.9	289	0.73	0.53	64.0	64.5	0.50	16.2	16.7	—	74,989	74,989	2.79	3.23	261	76,281
Automobile Care Center	2.57	2.34	2.35	22.0	0.06	0.04	4.87	4.91	0.04	1.24	1.27	—	5,706	5,706	0.21	0.25	19.9	5,805
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	79.6	72.6	72.8	681	1.73	1.26	151	152	1.19	38.3	39.5	—	176,908	176,908	6.57	7.61	616	179,956
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.62	0.56	0.65	4.71	0.01	0.01	1.25	1.26	0.01	0.32	0.33	—	1,378	1,378	0.06	0.07	0.13	1,399
High Turnover (Sit Down Restaurant)	5.25	4.76	5.47	39.8	0.11	0.09	10.6	10.7	0.08	2.69	2.77	—	11,646	11,646	0.48	0.55	1.12	11,823

Fast Food Restaurant with Drive Thru	34.9	31.6	36.3	264	0.76	0.59	70.3	70.9	0.55	17.8	18.4	—	77,337	77,337	3.16	3.66	7.43	78,514
Convenience Market with Gas Pumps	31.8	28.8	33.1	241	0.69	0.54	64.0	64.5	0.50	16.2	16.7	—	70,429	70,429	2.88	3.33	6.77	71,501
Automobile Care Center	2.42	2.19	2.52	18.3	0.05	0.04	4.87	4.91	0.04	1.24	1.27	—	5,359	5,359	0.22	0.25	0.52	5,441
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	74.9	67.9	78.1	568	1.62	1.26	151	152	1.19	38.3	39.5	—	166,149	166,149	6.80	7.86	16.0	168,678
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.09	0.10	0.76	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	—	197	197	0.01	0.01	0.31	201
High Turnover (Sit Down Restaurant)	0.76	0.69	0.82	6.04	0.02	0.01	1.54	1.55	0.01	0.39	0.40	—	1,560	1,560	0.06	0.07	2.47	1,587
Fast Food Restaurant with Drive Thru	5.02	4.55	5.37	39.7	0.11	0.09	10.1	10.2	0.08	2.57	2.65	—	10,267	10,267	0.42	0.49	16.3	10,438
Convenience Market with Gas Pumps	5.31	4.81	5.68	42.0	0.12	0.09	10.7	10.8	0.08	2.72	2.80	—	10,859	10,859	0.44	0.51	17.2	11,041

Automob Care Center	0.44	0.40	0.47	3.47	0.01	0.01	0.88	0.89	0.01	0.22	0.23	—	896	896	0.04	0.04	1.42	911
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	11.6	10.5	12.4	92.0	0.26	0.20	23.5	23.7	0.19	5.96	6.14	—	23,780	23,780	0.97	1.13	37.7	24,177

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.2	58.2	0.01	< 0.005	—	58.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	0.01	< 0.005	—	66.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.01	< 0.005	—	102
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	50.6	50.6	< 0.005	< 0.005	—	50.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	8.15	8.15	< 0.005	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.03	< 0.005	—	286

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440
Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.5	81.5	0.01	< 0.005	—	81.8
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	112
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97

Automob Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	287	287	0.03	< 0.005	—	288

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.98	0.90	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Total	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.12	0.11	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Total	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.90	19.9	25.8	0.61	0.01	—	45.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.16	3.89	5.05	0.12	< 0.005	—	8.87
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.77	5.97	7.74	0.18	< 0.005	—	13.6
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.11	0.36	0.46	0.01	< 0.005	—	0.82
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.12	3.79	4.91	0.12	< 0.005	—	8.63

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6

Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.75	0.00	6.75	0.67	0.00	—	23.6
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.23
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.18	0.00	—	6.47
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71	1.71
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.2	13.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.12	7.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	118	142	121	44,565	1,468	1,767	1,498	552,940
High Turnover (Sit Down Restaurant)	904	1,033	1,204	352,315	11,216	12,818	14,937	4,371,313
Fast Food Restaurant with Drive Thru	6,066	7,994	6,132	2,318,066	75,262	99,190	76,082	28,761,191
Convenience Market with Gas Pumps	2,083	2,363	2,612	802,460	25,844	29,313	32,412	9,956,447
Convenience Market with Gas Pumps	4,668	3,938	4,354	1,649,352	57,918	48,855	54,019	20,464,180
Automobile Care Center	554	554	554	202,210	6,874	6,874	6,874	2,508,907
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	189,513	63,171	45,660

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	370,388	346	0.0330	0.0040	1,536,501
High Turnover (Sit Down Restaurant)	421,379	346	0.0330	0.0040	1,368,706
Fast Food Restaurant with Drive Thru	646,114	346	0.0330	0.0040	2,098,682
Convenience Market with Gas Pumps	131,142	346	0.0330	0.0040	68,616
Convenience Market with Gas Pumps	190,906	346	0.0330	0.0040	99,886
Automobile Care Center	51,912	346	0.0330	0.0040	233,006
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	18,610,538	0.00
High Turnover (Sit Down Restaurant)	3,642,405	0.00
Fast Food Restaurant with Drive Thru	5,585,020	0.00

Convenience Market with Gas Pumps	125,486	0.00
Convenience Market with Gas Pumps	209,144	0.00
Automobile Care Center	3,543,540	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	75.6	—
High Turnover (Sit Down Restaurant)	143	—
Fast Food Restaurant with Drive Thru	212	—
Convenience Market with Gas Pumps	5.08	—
Convenience Market with Gas Pumps	8.47	—
Automobile Care Center	20.7	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00

Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Automobile Care Center	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0

Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074

Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8

Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Vehicle Data	Trip characteristics based on information from Traffic Analysis.
Operations: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Water and Waste Water	The project includes the construction and operation of a 5,425 square foot automated car wash. Water usage for the car wash has been estimated based on the Water Use, Evaporation and Carryout Conveyor Car Washes (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle. Per the Perris Gateway Traffic Analysis, the Automated Car wash use is anticipated to generate 554 daily trips per day. On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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APPENDIX 3.3:
CALEEMOD PROJECT OPERATIONAL LST EMISSIONS MODEL OUTPUTS

15495 - Perris Gateway (Operational LSTs) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15495 - Perris Gateway (Operational LSTs)
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.84510865994686, -117.24922508642456
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	80.5	1000sqft	1.85	80,478	0.00	—	—	—

High Turnover (Sit Down Restaurant)	12.0	1000sqft	0.28	12,000	0.00	—	—	—
Fast Food Restaurant with Drive Thru	18.4	1000sqft	0.42	18,400	0.00	—	—	—
Convenience Market with Gas Pumps	12.0	Pump	0.09	4,088	0.00	—	—	—
Convenience Market with Gas Pumps	20.0	Pump	0.14	5,951	0.00	—	—	—
Automobile Care Center	5.42	1000sqft	0.12	5,425	0.00	—	—	—
Other Asphalt Surfaces	17.3	Acre	17.3	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	57.8	59.3	16.1	104	0.05	0.20	0.85	1.05	0.19	0.22	0.41	311	7,825	8,136	33.9	1.41	143	9,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	52.5	54.0	16.8	113	0.05	0.19	0.85	1.04	0.18	0.22	0.40	311	7,783	8,094	34.3	1.45	140	9,522
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	45.2	46.8	14.6	102	0.04	0.19	0.73	0.91	0.18	0.18	0.36	311	7,209	7,520	33.9	1.27	141	8,886
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.24	8.54	2.67	18.6	0.01	0.03	0.13	0.17	0.03	0.03	0.07	51.5	1,194	1,245	5.61	0.21	23.3	1,471

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.6	55.5	14.6	96.8	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,146	4,146	2.34	1.24	3.48	4,577
Area	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	57.8	59.3	16.1	104	0.05	0.20	0.85	1.05	0.19	0.22	0.41	311	7,825	8,136	33.9	1.41	143	9,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	52.4	51.1	15.4	112	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,127	4,127	2.65	1.28	0.09	4,574
Area	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	52.5	54.0	16.8	113	0.05	0.19	0.85	1.04	0.18	0.22	0.40	311	7,783	8,094	34.3	1.45	140	9,522

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.3	43.2	13.1	96.7	0.03	0.07	0.73	0.79	0.06	0.18	0.25	—	3,538	3,538	2.28	1.09	1.29	3,922
Area	0.67	3.47	0.03	3.76	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.5	15.5	< 0.005	< 0.005	—	15.5
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	3,451	3,451	0.32	0.02	—	3,466
Water	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Total	45.2	46.8	14.6	102	0.04	0.19	0.73	0.91	0.18	0.18	0.36	311	7,209	7,520	33.9	1.27	141	8,886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.09	7.89	2.40	17.6	0.01	0.01	0.13	0.14	0.01	0.03	0.05	—	586	586	0.38	0.18	0.21	649
Area	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Energy	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	571	571	0.05	< 0.005	—	574
Water	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3
Waste	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1
Total	8.24	8.54	2.67	18.6	0.01	0.03	0.13	0.17	0.03	0.03	0.07	51.5	1,194	1,245	5.61	0.21	23.3	1,471

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.47	0.46	0.12	0.80	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	0.02	0.01	0.03	38.0
High Turnover (Sit Down Restaurant)	3.97	3.89	1.02	6.78	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	291	291	0.16	0.09	0.24	321
Fast Food Restaurant with Drive Thru	26.4	25.8	6.78	45.1	0.02	0.04	0.40	0.43	0.03	0.10	0.13	—	1,930	1,930	1.09	0.58	1.62	2,130
Convenience Market with Gas Pumps	24.0	23.5	6.17	41.0	0.02	0.03	0.36	0.39	0.03	0.09	0.12	—	1,758	1,758	0.99	0.52	1.47	1,940
Automobile Care Center	1.83	1.79	0.47	3.12	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	134	134	0.08	0.04	0.11	148
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	56.6	55.5	14.6	96.8	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,146	4,146	2.34	1.24	3.48	4,577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.43	0.42	0.13	0.93	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.2	34.2	0.02	0.01	< 0.005	37.9
High Turnover (Sit Down Restaurant)	3.67	3.58	1.08	7.85	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	289	289	0.19	0.09	0.01	321

Fast Food Restaurant with Drive Thru	24.4	23.8	7.16	52.1	0.02	0.04	0.40	0.43	0.03	0.10	0.14	—	1,921	1,921	1.23	0.59	0.04	2,129
Convenience Market with Gas Pumps	22.2	21.6	6.52	47.5	0.02	0.03	0.36	0.40	0.03	0.09	0.12	—	1,750	1,750	1.12	0.54	0.04	1,939
Automobile Care Center	1.69	1.65	0.50	3.61	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	133	133	0.09	0.04	< 0.005	148
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	52.4	51.1	15.4	112	0.04	0.08	0.85	0.93	0.07	0.22	0.29	—	4,127	4,127	2.65	1.28	0.09	4,574
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.07	0.02	0.15	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.86	4.86	< 0.005	< 0.005	< 0.005	5.39
High Turnover (Sit Down Restaurant)	0.53	0.52	0.16	1.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.4	38.4	0.02	0.01	0.01	42.6
Fast Food Restaurant with Drive Thru	3.49	3.41	1.04	7.62	< 0.005	0.01	0.06	0.06	< 0.005	0.01	0.02	—	253	253	0.16	0.08	0.09	280
Convenience Market with Gas Pumps	3.70	3.60	1.09	8.06	< 0.005	0.01	0.06	0.07	0.01	0.02	0.02	—	267	267	0.17	0.08	0.10	297

Automob Care Center	0.30	0.30	0.09	0.66	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	22.1	22.1	0.01	0.01	0.01	24.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.09	7.89	2.40	17.6	0.01	0.01	0.13	0.14	0.01	0.03	0.05	—	586	586	0.38	0.18	0.21	649

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307

Automob Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.03	< 0.005	—	353
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	400	400	0.04	< 0.005	—	402
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	613	613	0.06	0.01	—	616
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.03	< 0.005	—	307
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	49.2	49.2	< 0.005	< 0.005	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,718	1,718	0.16	0.02	—	1,729

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	58.2	58.2	0.01	< 0.005	—	58.5
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	0.01	< 0.005	—	66.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.01	< 0.005	—	102
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	50.6	50.6	< 0.005	< 0.005	—	50.9
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	8.15	8.15	< 0.005	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	285	285	0.03	< 0.005	—	286

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440
Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	492	492	0.04	< 0.005	—	494
High Turnover (Sit Down Restaurant)	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	439	439	0.04	< 0.005	—	440

Fast Food Restaurant with Drive Thru	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	673	673	0.06	< 0.005	—	674
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.0	54.0	< 0.005	< 0.005	—	54.2
Automobile Care Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	74.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,732	1,732	0.15	< 0.005	—	1,737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.5	81.5	0.01	< 0.005	—	81.8
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Fast Food Restaurant with Drive Thru	0.01	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	112
Convenience Market with Gas Pumps	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97

Automob Care Center	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.26	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	287	287	0.03	< 0.005	—	288

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.98	0.90	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Total	0.98	3.76	0.05	5.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.12	0.11	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57
Total	0.12	0.63	0.01	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.56	2.56	< 0.005	< 0.005	—	2.57

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	35.7	120	156	3.67	0.09	—	274
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	6.98	23.5	30.5	0.72	0.02	—	53.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	36.1	46.8	1.10	0.03	—	82.2

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.64	2.16	2.80	0.07	< 0.005	—	4.92
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	6.79	22.9	29.7	0.70	0.02	—	52.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.8	205	266	6.25	0.15	—	467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.90	19.9	25.8	0.61	0.01	—	45.3
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	1.16	3.89	5.05	0.12	< 0.005	—	8.87
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.77	5.97	7.74	0.18	< 0.005	—	13.6
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	0.11	0.36	0.46	0.01	< 0.005	—	0.82
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.12	3.79	4.91	0.12	< 0.005	—	8.63

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.1	33.9	44.0	1.03	0.02	—	77.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6

Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	40.8	0.00	40.8	4.07	0.00	—	143
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	77.0	0.00	77.0	7.69	0.00	—	269
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	400
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	7.31	0.00	7.31	0.73	0.00	—	25.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.2	0.00	11.2	1.12	0.00	—	39.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.75	0.00	6.75	0.67	0.00	—	23.6
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.2
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.23
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.85	0.00	1.85	0.18	0.00	—	6.47
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.5	0.00	41.5	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.6	79.6
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71	1.71
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.2	13.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.12	7.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.1	23.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	118	142	121	44,565	8.28	9.97	8.45	3,120
High Turnover (Sit Down Restaurant)	904	1,033	1,204	352,315	63.3	72.3	84.3	24,662
Fast Food Restaurant with Drive Thru	6,066	7,994	6,132	2,318,066	425	560	429	162,265
Convenience Market with Gas Pumps	2,083	2,363	2,612	802,460	146	165	183	56,172
Convenience Market with Gas Pumps	4,668	3,938	4,354	1,649,352	327	276	305	115,455
Automobile Care Center	554	554	554	202,210	38.8	38.8	38.8	14,155
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	189,513	63,171	45,660

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	370,388	346	0.0330	0.0040	1,536,501
High Turnover (Sit Down Restaurant)	421,379	346	0.0330	0.0040	1,368,706
Fast Food Restaurant with Drive Thru	646,114	346	0.0330	0.0040	2,098,682
Convenience Market with Gas Pumps	131,142	346	0.0330	0.0040	68,616
Convenience Market with Gas Pumps	190,906	346	0.0330	0.0040	99,886
Automobile Care Center	51,912	346	0.0330	0.0040	233,006
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	18,610,538	0.00
High Turnover (Sit Down Restaurant)	3,642,405	0.00
Fast Food Restaurant with Drive Thru	5,585,020	0.00

Convenience Market with Gas Pumps	125,486	0.00
Convenience Market with Gas Pumps	209,144	0.00
Automobile Care Center	3,543,540	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	75.6	—
High Turnover (Sit Down Restaurant)	143	—
Fast Food Restaurant with Drive Thru	212	—
Convenience Market with Gas Pumps	5.08	—
Convenience Market with Gas Pumps	8.47	—
Automobile Care Center	20.7	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00

Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0
Automobile Care Center	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	User Defined	150	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0

Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	36.04516874
Employed	38.00846914
Median HI	53.00911074

Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8

Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days PVCCSP EIR mitigation measure MM Air 6 requires the use of equipment that meets or exceeds Tier 3 standards. All equipment used during Project construction will meet or exceed CARB Tier 4 Interim emission standards
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Vehicle Data	Trip characteristics based on information from Traffic Analysis. Operational LSTs on-site travel was estimated to be 0.07 miles
Operations: Architectural Coatings	PVCC SP EIR MM Air 9: Super-Compliant VOC Paint (10 g/L) for nonresidential interior and exterior surfaces
Operations: Water and Waste Water	The project includes the construction and operation of a 5,425 square foot automated car wash. Water usage for the car wash has been estimated based on the Water Use, Evaporation and Carryout Conveyor Car Washes (International Carwash Association, 2018). This study assumes that the average conveyor car wash utilizes 30 gallons of freshwater per vehicle. Per the Perris Gateway Traffic Analysis, the Automated Car wash use is anticipated to generate 554 daily trips per day. On this basis, water usage for the proposed automated car wash is estimated at 3,033,150 gallons per year. The water usage estimates for the car wash were added to the default water usage estimates in CalEEMod for a total of 3,543,540 gallons per year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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