GreenBee Concrete
Commercial Contractor's Yard
CUP 24-05264

Initial Study
and
Mitigated Negative Declaration

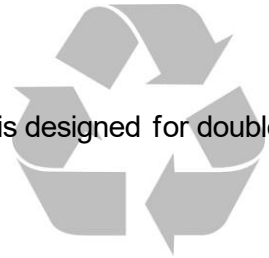
Lead Agency:

City of Perris
101 North D Street
Perris, California 92570

Prepared by:

MIG, Inc.
1650 Spruce Street, Suite 106
Riverside, California 92507

Public Review Draft
November 9, 2026



- This document is designed for double-sided printing -

Table of Contents

1 Introduction 1
- 1.1 – Purpose of CEQA 1
- 1.2 – Public Comments 2

2 Project Description 3
- 2.1 – Project Title 3
- 2.2 – Lead Agency Name and Address 3
- 2.3 – Contact Person and Phone Number 3
- 2.4 – Project Sponsor's Name and Address 3
- 2.5 – Project Location 3
- 2.6 – General Plan Land Use Designation 3
- 2.7 – Zoning District 3
- 2.8 – Surrounding Land Uses 3
- 2.9 – Environmental Setting 4
- 2.10 – Project Description 4
- 2.11 – Required Approvals 6

3 Determination 19
- 3.1 – Environmental Factors Potentially Affected 19
- 3.2 – Determination 19

4 Evaluation of Environmental Impacts 21
- 4.1 – Aesthetics 21
- 4.2 – Agriculture and Forest Resources 24
- 4.3 – Air Quality 26
- 4.4 – Biological Resources 35
- 4.5 – Cultural Resources 41
- 4.6 – Energy 45
- 4.7 – Geology and Soils 47
- 4.8 – Greenhouse Gas Emissions 51
- 4.9 – Hazards and Hazardous Materials 55
- 4.10 – Hydrology and Water Quality 60
- 4.12 – Land Use and Planning 65
- 4.13 – Mineral Resources 74
- 4.14 – Noise 75
- 4.15 – Population and Housing 89
- 4.16 – Public Services 90
- 4.17 – Recreation 92
- 4.19 – Transportation 93
- 4.20 – Tribal Cultural Resources 98
- 4.21 – Utilities and Service Systems 100
- 4.22 – Wildfire 104
- 4.23 – Mandatory Findings of Significance 106

5 Mitigation Summary 111

6 References 117
- 6.1 – List of Preparers 117
- 6.2 – Bibliography 118

List of Tables

Table 1 Surrounding Land Uses 4
Table 2 Project Construction Schedule, Activities, and Equipment 6
Table 3 South Coast Air Basin Attainment Status 28
Table 4 Unmitigated Maximum Daily Regional Construction Emissions 29
Table 5 Unmitigated Maximum Daily Regional Operational Emissions 31
Table 6 Local Significance Threshold Construction Analysis 32
Table 7 Local Significance Threshold Operational Analysis 33
Table 8 Project Greenhouse Gas Emissions 53
Table 9 City of Perris General Plan Policy Consistency Analysis 66
Table 10 Existing Ambient Noise Levels (dBA) 76
Table 11 Construction Activity, Duration, and Typical Equipment 77
Table 12 Maximum Project Construction Equipment Noise Levels 78
Table 13 Project Noise Source – Reference and Hourly Noise Levels 80
Table 14 Project Noise Levels at Modeled Residential Receptors 81
Table 15 FTA Ground-Borne Vibration Impact Criteria for General Assessment 84
Table 16 Caltrans' Vibration Threshold Criteria for Building Damage 85
Table 17 Ground-Borne Vibration from Typical Construction Equipment 85

List of Exhibits

Exhibit 1 Regional Context Map 9
Exhibit 2 Project Vicinity Map 11
Exhibit 3 Conceptual Site Plan 13
Exhibit 4 Conceptual Building Floor Plan 15
Exhibit 5 Building Elevations 17
Exhibit 6 Project Noise Levels at Modeled Residential Receptors 82

List of Appendices

Appendix A Air Quality, Greenhouse Gas, and Energy Analysis
Appendix B Traffic Impact Analysis and VMT Screening Assessment
Appendix C Biological Resources Desktop Assessment Results
Appendix D Historic/Archaeological Resources Survey Report
Appendix E Geotechnical Engineering Investigation
Appendix F Paleontological Resources Assessment Report
Appendix G Phase I Environmental Site Assessment
Appendix H Project Specific Water Quality Management Plan
Appendix I Noise and Vibration Analysis Report
Appendix J Record of Tribal Consultation

1 Introduction

The City of Perris received an application from PM Design Group (applicant) for the construction and operation of a contractor's yard (project) located on an approximately 5.39-acre site at 25775 Sherman Road in the City of Perris, California. The application includes a Parcel Merger and a Conditional Use Permit (CUP) for the proposed outdoor storage activities. The approval of the application constitutes a *project* that is subject to review under the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000, *et seq.*) and the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) (14 California Code of Regulations Section 15000, *et. seq.*). This Initial Study was prepared to assess the short-term, long-term, and cumulative environmental impacts resulting from the proposed project. This report was prepared to comply with CEQA Guidelines Section 15063, which sets forth the required contents of an Initial Study. These include:

- A description of the project, including the location of the project (see Section 2);
- Identification of the environmental setting (see Section 2.10);
- Identification of environmental effects by the use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (see Section 4);
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (see Section 4.11);
- Discussion of ways to mitigate significant effects identified, if any (see Section 5); and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (see Section 6).

1.1 – Purpose of CEQA

CEQA Section 21000 of the California Public Resources Code provides as follows:

The Legislature finds and declares as follows:

a) The maintenance of a quality environment for the people of this state now and in the future, is a matter of statewide concern.
b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the state to:

h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
j) Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.
k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs, and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in CEQA Section 21002, quoted below:

> The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event that specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 – Public Comments

Comments from all agencies and individuals are invited regarding the information contained in this Initial Study. Such comments should explain any perceived deficiencies in the assessment of impacts in the Initial Study. Materials related to the preparation of this Initial Study are available at: https://www.cityofperris.org/departments/development-services/planning/environmental-documents-for-public-review. To request an appointment to review these materials, please contact:

Monica Carranza, Assistant Planner
City of Perris Development Services Department, Planning Division
135 North D Street
Perris, California 92570
(951) 943-5003 ext. 370

All written comments received during the 30-day public review period for the Initial Study/Mitigated Negative Declaration will be considered by the City of Perris prior to adoption.

2 Project Description

2.1 – Project Title

GreenBee Concrete Commercial Contractor's Yard

2.2 – Lead Agency Name and Address

City of Perris
101 North D Street
Perris, California 92570

2.3 – Contact Person and Phone Number

City of Perris
Planning Division
135 North D Street
Perris, California 92570
Monica Carranza, Assistant Planner
(951) 943-5003 ext. 370

2.4 – Project Sponsor's Name and Address

PM Design Group
138 Executive Park, Suite 310
Irvine, California 92614

2.5 – Project Location

The project site is located at 25775 Sherman Road between Van Buren Avenue and Tyler Avenue in the City of Perris, Riverside County, California (see Exhibit 1, Regional Context Map). The site is located approximately 0.37 mile east of Interstate 215 (I-215) and approximately 0.13 mile southwest of State Route 74 (SR-74). The project site is comprised of two vacant parcels (APNs: 329-240-028 & 329-240-031) totaling 5.39 acres (see Exhibit 2, Project Vicinity Map). The site is located at Latitude 33° 44' 45.46" North, Longitude 117° 10' 53.95" West.

2.6 – General Plan Land Use Designation

Light Industrial (LI)

2.7 – Zoning District

LI - Light Industrial

2.8 – Surrounding Land Uses

The project site is bounded by residential uses, vacant land, and Sherman Road to the east (City of Menifee); by residential uses, a commercial use, and vacant land to the south; by residential uses and vacant land to the west; and by an industrial use to the north (City of Menifee). Surrounding uses are summarized in Table 1.

Table 1
Surrounding Land Uses

Direction	General Plan Designation	Zoning District	Existing Land Use
Project Site	Light Industrial (LI)	LI - Light Industrial	Vacant Land
North (Menifee)	Economic Development Corridor (EDC)-Northern Gateway	Economic Development Corridor-Northern Gateway (EDC-NG)	J.N. Grease Services Recycling Center
South	Commercial Community (CC)	CC - Commercial Community	Single Family Residence; Lonsdale Trucking; Vacant Land
East (Menifee)	Business Park (BP) (0.25-0.60 FAR)	Business Park/Light Industrial (BP)	Single Family Residences; Vacant Land
West	Commercial Community (CC)	CC - Commercial Community	Single Family Residence; Vacant Land

2.9 – Environmental Setting

The project site is located in a partially developed area of the City of Perris, Riverside County, California. The project site is surrounded by residential uses and vacant land to the east; residential uses, a commercial use, and vacant land to the south; residential uses and vacant land to the west; and an industrial use to the north. The site is bound on the east by Sherman Road; on the south by a single family home (APN 329-240-030), a trucking company (APN 329-240-054), and vacant land (APN 329-240-027); on the west by a single family home (APN 329-240-010) and vacant land (APNs 329-240-014 and 329-240-015); and on the north by a grease recycling center within the adjacent City of Menifee (APN 329-240-053). The project area includes a mix of industrial uses, commercial uses, residential uses, institutional uses, surface streets, and vacant land designated for industrial and business park uses. The project site is relatively flat, with an elevation ranging between approximately 1,430 to 1,433 feet above mean sea level. The project site was formerly used for agriculture until at least the 1980s, was vacant until at least 2010, and then was used by Cemex Construction Materials as a construction yard for concrete materials and construction parking until 2011. The site has remained vacant since 2011 and consists of mostly compacted fill, gravel, and limited ruderal/non-native grasses. There are no rock outcroppings on the site, no mature trees on the site, and the site does not contain any structures.

2.10 – Project Description

The proposed project includes development and operation of a new commercial contractor yard on the 5.49-acre site (APNs 329-240-028 & 329-240-031) (see Exhibit 3, Conceptual Site Plan). The proposed commercial contractor yard would include development of a 25,405-square-foot building, a 43,470-square-foot lumber storage yard with two covered shade structures totaling approximately 6,400 square feet, and associated parking and landscaping improvements. The proposed building would consist of approximately 14,207 square feet of office floor area, an approximately 6,800-square-foot mechanics shop, and an approximately 4,340-square-foot storage facility. The office area of the building would include 52 offices, an office cubicle area, five executive offices, a conference room, a training room, a reception room, an administrative room, a break room, a plan room, a supply room, a server room, an electrical/mechanical room, and restrooms (see Exhibit 4, Conceptual Building Floor Plan). The project also includes two outdoor patio areas connected to the building for employee use; one at the northwest corner of the building that would connect to the office and storage facility, and the other at the southwest corner of the building that would connect to the mechanics shop.

The proposed building would be constructed using concrete masonry unit blocks with a stucco finish (see Exhibit 5, Building Elevations). The proposed office portion of the building would be 20 feet and 4 inches tall at the parapet, the proposed storage facility portion of the building would be 23 feet and 4 inches tall at its highest point, and the proposed mechanics shop portion of the building would be 28 feet tall at its highest point. The project design includes an 8-foot-tall masonry wall along the northern, eastern, and western boundaries, and a 14-foot-tall masonry wall along the southern boundary line which is shared with existing residential uses. A metal overhang and entrance to the office area would be provided on the north side of the building. Aluminum-framed windows and hollow metal doors would also be included on the west, south, and east sides of the building. The mechanics shop would include four metal roll-up doors on the west side of the building, and the storage facility would include one metal roll-up door on the north side of the building.

Site Access and Parking

Access to the site would be provided via a 40-foot-wide driveway at the existing entrance at the northwest corner of the site along Sherman Road, and an internal access road that would provide access to the proposed lumber storage yard, building, and parking areas. The proposed project would include 150 passenger vehicle parking stalls in the eastern portion of the site, five of which would be Americans with Disabilities Act (ADA) stalls. The northwest portion of the project site would also include 29 truck trailer parking stalls.

Landscaping

The proposed project would include approximately 46,461 square feet of landscaping, which would comprise approximately 19.4 percent of the site area. These landscaped areas would serve as bio swales for stormwater treatment. Landscaping would be located along the southern and eastern edges of the proposed building, the southern portion of the parking area, the northern boundary of the site, in planters within the parking area, and around a proposed on-site detention basin. The project would also include the planting of 71 ornamental trees within the landscaped areas and around the proposed building.

Drainage and Utilities

The proposed project would include drainage improvements as part of the building construction and throughout the parking area. Stormwater would be captured in the proposed building's external drainage and gutter system and the impervious areas of the site (non-landscaped areas) and would be directed to three storm drain inlets on the site – two located in the parking lot area and one located in the lumber yard area. The water would then be treated in an on-site detention basin before being directed into the existing storm drain system under Sherman Road. The project would include lateral utility connections for electricity (Southern California Edison), natural gas (SoCalGas), and water/sewer (Eastern Municipal Water District) within the Sherman Road right-of-way. Other appurtenances related to the operation of the proposed project include a guard shack, bicycle racks, and trash enclosures.

Project Operation

The proposed commercial contractor's yard would operate Monday through Friday from 6 a.m. to 5 p.m. Employees in the office portion of the building would work from 8 a.m. to 5 p.m. and employees in the lumber storage yard would work from 6 a.m. to 3 p.m. The proposed office portion of the building would be used for sales and general business administration purposes. The proposed mechanics shop would be used for repairs and upkeep of company-owned delivery trucks and forklifts. The proposed storage facility would be used for storage of rebar, anchor bolts, foundation hardware, foundation repair materials, and small tools. Operation of the proposed lumber yard would consist of preparing form

boards, stakes, and dimensional lumber prior to transport to development sites for use in concrete formwork.

Concrete formwork, also known as *shuttering*, requires solid molds to hold liquid concrete in place until it cures. Form boards and stakes are used to build formworks before pouring concrete for flatwork applications, such as slab-on fill. These forms are necessary to shape and strengthen the concrete. Formwork can be used to turn concrete slabs into walls, foundations, and floors. The forms can also add surface texture to the concrete for beautification. The purpose of the stakes is to secure wood or metal forms to the ground. Each stake has a chiseled point so they can be driven into the ground with minimal effort. The form boards would be made from Laminated Strand Lumber while the stakes and dimensional lumber would be made from natural wood. Laminated Strand Lumber is part of a family of products, structural composite lumber, that are made of dried and graded wood veneers, strands or flakes that are layered upon one another and bonded together with a moisture-resistant adhesive into large blocks known as billets. The form boards would be stacked and stored in the covered shade structures along with dimensional lumber and stakes. Two table saws located under the covered shade structures would be used to cut the form boards, the stakes, and the dimensional lumber to desired dimensions. Job-site packages comprised of the form boards, dimensional lumber, stakes, and hardware would be packaged in the lumber yard area before being loaded onto delivery trucks with forklifts for delivery to job sites.

Operation of the project would include use of three forklifts and twelve delivery trucks that would make daily deliveries to job sites. Six delivery trucks would leave the yard in the morning and come back in the afternoon/evening. Six concrete pump trucks would also leave in the morning and come back in the afternoon/evening. The project would employ approximately 35 employees: 15 office employees, 5 mechanics in the mechanics shop, and 15 workers in the lumber yard. All wood waste, including sawdust, would be disposed of in a 40-cubic-yard recycling bin. Project operations would generate minimal sawdust. Sawdust would be collected using brooms and dustbins.

Project Construction

Construction of the proposed project would involve site preparation, grading, building construction, paving, and architectural coating. Construction activities are assumed to begin as early as 2025 and last approximately 14 months. Table 2 summarizes the proposed project's construction phasing and the typical pieces of heavy-duty, off-road construction equipment that would be required during each phase.

Table 2
Project Construction Schedule, Activities, and Equipment

Construction Activity	Duration (Days)[A]	Typical Equipment Used[B]
Site Preparation	10	Dozer, Tractor/Loader/Backhoe
Grading	20	Grader, Dozer, Excavator, Tractor/Loader/Backhoe
Building Construction	230	Crane, Forklift, Generator, Tractor/Loader/Backhoe, Welder
Paving	20	Paver, Roller, Paving Equipment
Architectural Coating	20	Air Compressor

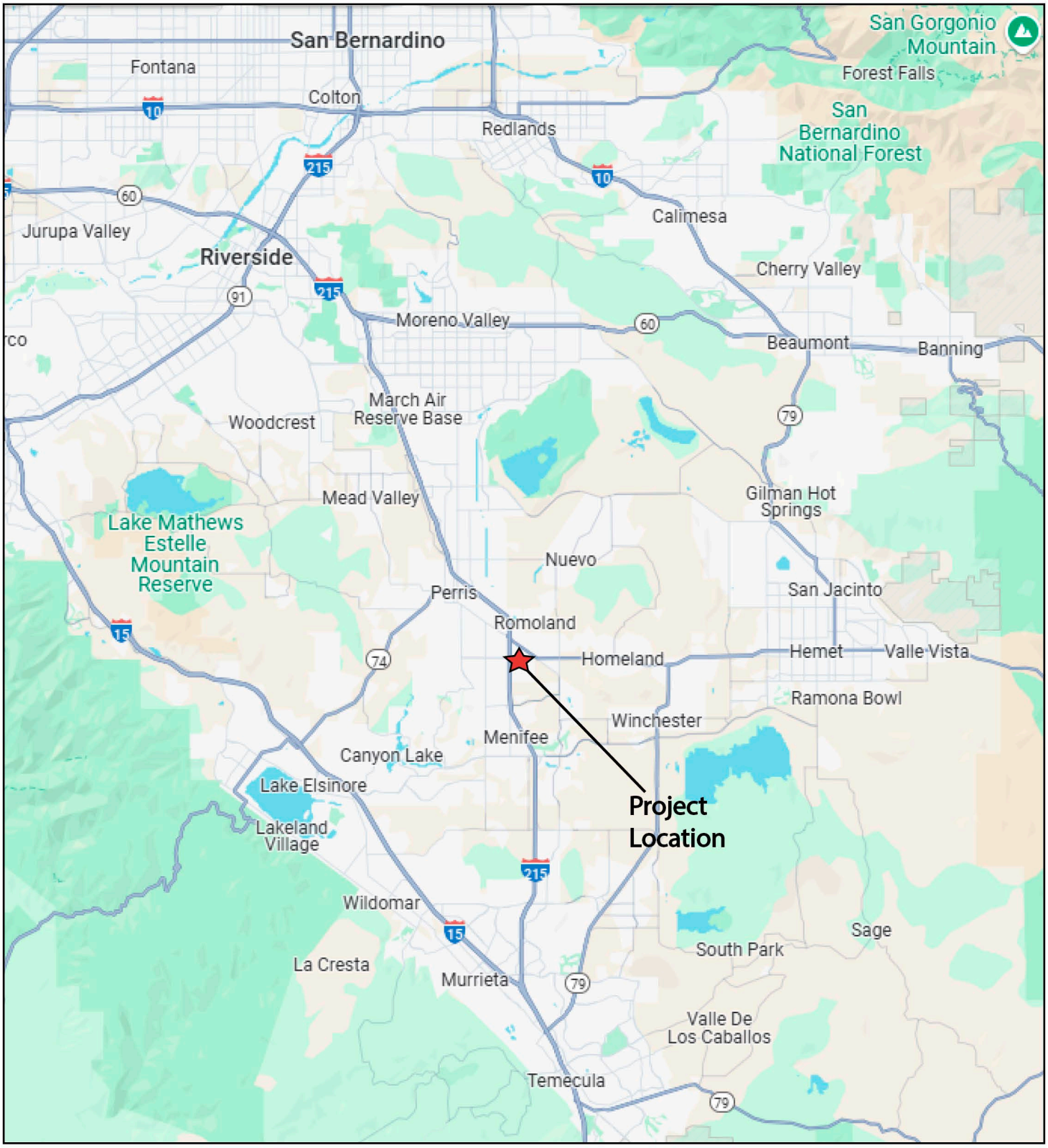
Source: MIG, Inc. 2024.
(A) Days refers to total active workdays in the construction phase, not calendar days.
(B) The typical equipment list does not reflect all equipment that would be used during the construction phase. Not all equipment would operate eight hours per day each workday.

2.11 – Required Approvals

The City of Perris is the only land use authority for this project requiring the following approvals:

- Adoption of the Mitigated Negative Declaration for the project pursuant to CEQA requirements.
- Conditional Use Permit CUP 24-05264 for operation of the lumber yard use.
- Parcel Merger PLN 24-05118 to merge the two project parcels into a single parcel.

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Not to Scale

Source: Google Maps

http://www.migcom.com • 951-787-9222

Exhibit 1 Regional Context Map

GreenBee Concrete Commercial Contractor's Yard
City of Perris, California

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- Project Site

Not to Scale

Source: Google Earth

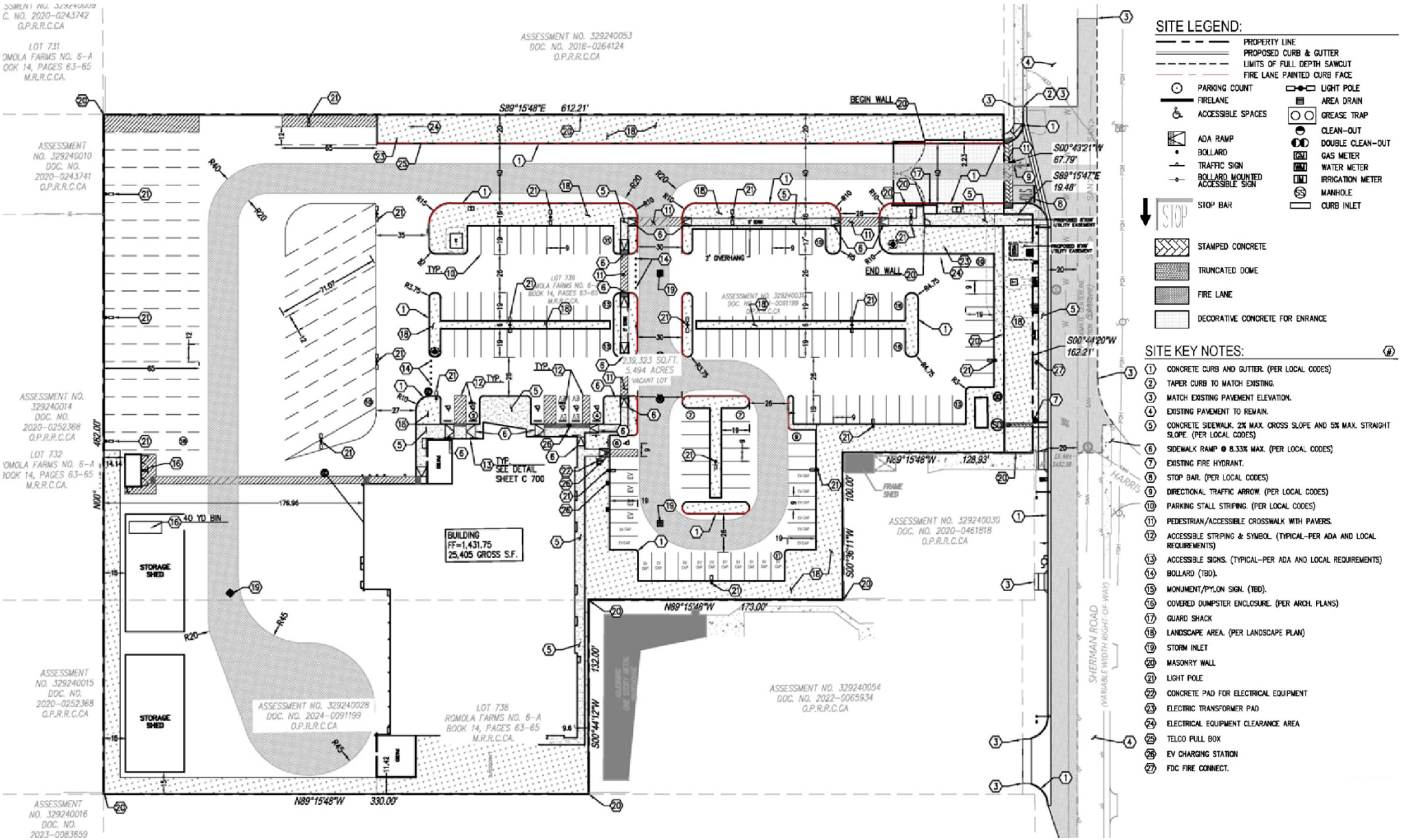
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Exhibit 2 Project Vicinity Map

GreenBee Concrete Commercial Contractor's Yard

City of Perris, California

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Source: JM Civil.

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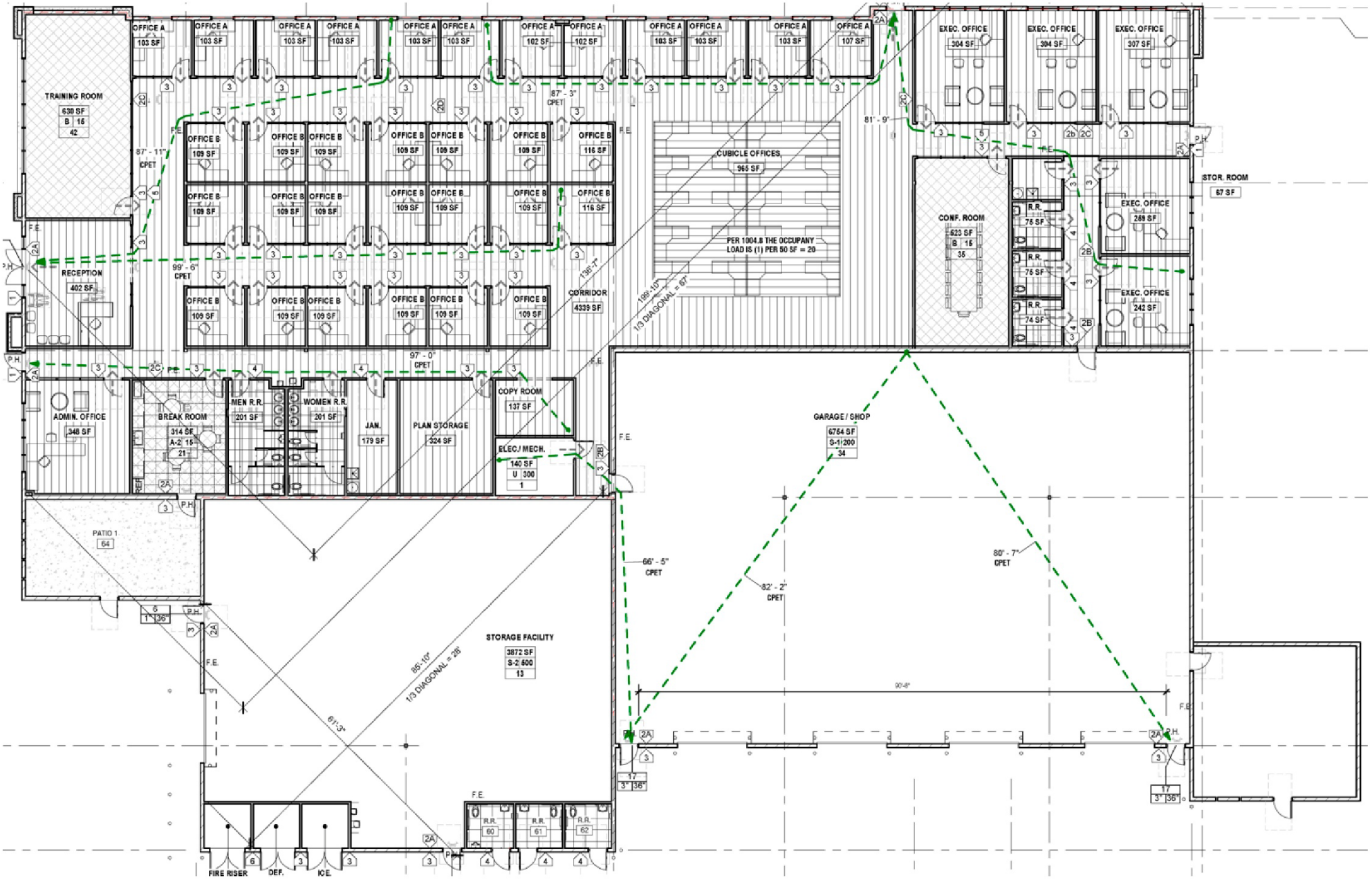
Exhibit 3 Conceptual Site Plan

MIG

GreenBee Concrete Commercial Contractor's Yard

City of Perris, California

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Source: JM Civil.

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Exhibit 4 Conceptual Building Floor Plan

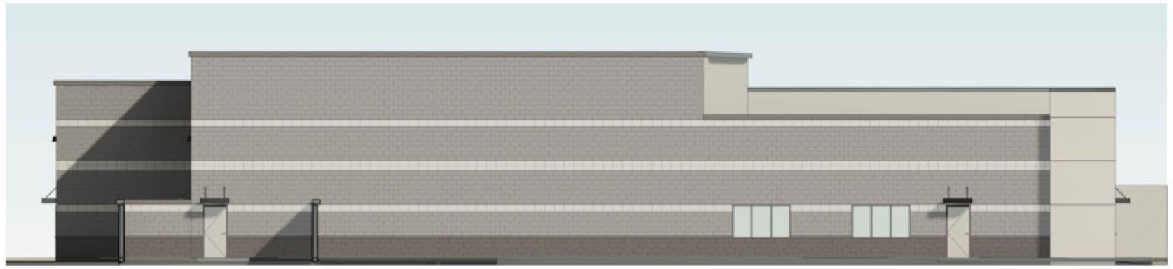
GreenBee Concrete Commercial Contractor's Yard

City of Perris, California

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1 NORTH ELEVATION
1/8" = 1'-0"



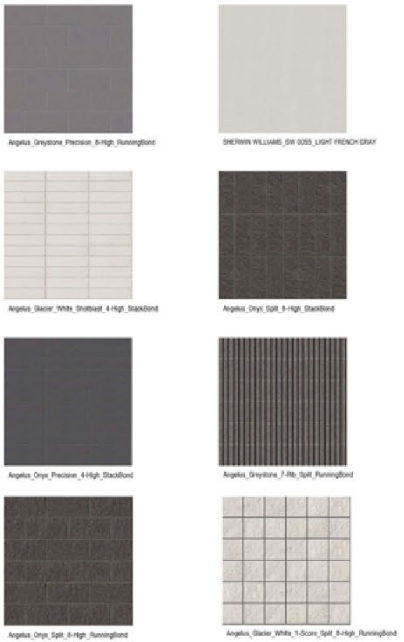
2 SOUTH ELEVATION
1/8" = 1'-0"



3 EAST ELEVATION
1/8" = 1'-0"



4 WEST ELEVATION
1/8" = 1'-0"



Source: JM Civil.

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Exhibit 5 Building Elevations

GreenBee Concrete Commercial Contractor's Yard
City of Perris, California

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3 Determination

3.1 – 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 Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology /Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation/Traffic	☐	Tribal Cultural Resources
☐	Utilities / Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

3.2 – Determination

☐	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 addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	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.

Name: Monica Carranza, Assistant Planner Date

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4.1 – Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 view from a state scenic highway?	☐	☐	☐	☑
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public view 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?	☐	☑	☐	☐

a) Less Than Significant Impact. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The natural mountainous setting of the Perris Valley area is critical to its overall visual character and provides scenic vistas for the community. Topography and a lack of dense vegetation or urban development offer scenic views throughout the City, including to and from hillside areas. Scenic features include gently sloping alluvial fans, rugged mountains and steep slopes, mountain peaks and ridges, rounded hills with boulder outcrops, farmland, and open space. Scenic vistas provide views of these features from public spaces.

The project vicinity is a flat, broad basin with rolling foothills to the east and west of the basin. Significant scenic vistas that may be viewed from the proposed project site include the Russell Mountains and Bernasconi Hills within the Lake Perris State Recreation Area, located approximately 7 miles north of the project site. Terri Peak (elevation 2,569 feet), which is part of the Russell Mountains, can be seen

from the project site. Views immediately west of the project site consist of vacant land and single family residences, views immediately to the north consist of industrial uses, and views immediately to the south and east consist of vacant land and single family residences. Interstate 215 can be seen from the project site to the west. Structures in the City of Perris and in the vicinity of the project site consist of low-rise buildings that partially preserve views of nearby mountains and hills.

The project site is not considered to be within or to comprise a portion of a scenic vista; therefore, the proposed project would not alter existing scenic vistas. The project vicinity is comprised of mostly light industrial, agriculture, and residential uses as well as vacant land. The proposed commercial contractor's yard would be consistent with other uses and structures found in the project vicinity. The allowable building height in the project area is 50 feet. The proposed building would be 28 feet tall at its highest point. Therefore, due to the height of the building and the distance of the project site from scenic resources the proposed project would not block any scenic vista, and potential impacts would be less than significant.

b) No Impact. The project site is located on vacant land within an area comprised of industrial, agriculture, and residential uses as well as vacant land. The project site is not within view an officially designated state scenic highway as identified by the California Scenic Highway Mapping System.[1] The nearest officially designated scenic highway is a portion of State Route 74 approximately 19 miles east of the project site. The site is also not identified in the Perris General Plan Conservation Element as being located within or adjacent to a "scenic route" or "view corridor". The project site is vacant and comprised of non-native grasses and gravel. There are no mature trees on the project site, there are no rock outcroppings on the project site or in the project vicinity, and there are no structures on the site. Therefore, the project would not damage any scenic resources within a State Scenic Highway. No impact would occur.

c) Less Than Significant Impact. According to CEQA Section 21071(a)), an urbanized area is an incorporated city that meets either of the following criteria: (1) has a population of at least 100,000 persons, or (2) has a population of less than 100,000 persons if the population of that city and no more than two contiguous incorporated cities combined equals at least 100,000 persons. According to the US Census Bureau, the most recent 2023 population estimate for the City of Perris' was approximately 80,606 persons, the population estimate for Moreno Valley, the contiguous city to the north, was 212,416, and the population estimate for Menifee, the contiguous city to the south, was 113,425; therefore, the project site is located within an urbanized area. Because the Project site is located within an urbanized area, the threshold for analysis is if the project would conflict with applicable zoning and other regulations governing scenic quality.

The project site is a vacant piece of land in a mostly urbanized area. Construction of the proposed project would result in short-term impacts to the existing visual character and quality of the area. Project construction activities would require the use of equipment and storage of materials within the project site. However, construction activities are temporary and would not result in any permanent visual impact. The project site is zoned for LI – Light Industrial which allows limited assembly and packaging operations, self-storage warehouses, distribution centers, and business-to-business retail operations. The City does not have any policies regulating scenic quality, and the proposed project would be a similar use to existing and planned development in the area. Therefore, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

d) Less Than Significant with Mitigation Incorporated. Excessive or inappropriately directed lighting can adversely impact night-time views by reducing the ability to see the night sky and stars. 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). Sources of daytime glare are typically concentrated in commercial areas and are often associated with retail uses. 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.

There are lighting sources adjacent to the site, including free-standing street lights, light fixtures on buildings, and pole-mounted lights. The proposed project includes exterior parking lot lighting and interior lighting. Light spillover and glare would be avoided by requiring that light be designed to project downward and create glare on adjacent properties per the requirements of Perris Municipal Code Section 19.02.110 (Lighting). Perris Municipal Code Section 19.02.110 requires all lighting, including security lighting, to be directed away from adjoining properties and the public right-of-way. In addition, Perris Municipal Code Section 19.44.070 (Performance Standards) requires all lighting fixtures to be fully shielded with cut-off fixtures so that there is no glare emitted onto adjacent properties. Lighting from the proposed project would be shielded and pointed away from the residential uses to the south and east. Compliance with the Perris Municipal Code standards for lighting and glare would ensure that operational lighting and glare impacts would be less than significant.

During project construction, nighttime lighting may be used within the construction staging areas to provide security for construction equipment. Due to the distance between the construction area and the adjacent residential properties and roadway, such security lights may result in glare to residents and motorists. However, this potential impact would be reduced to a less than significant level through implementation of mitigation measure AES-1 which would require the temporary lighting to be downward facing and hooded. This would reduce the potential impact to a less than significant level.

Mitigation Measure

AES-1 **Prevent Light Spillover.** Prior to issuance of grading permits, the Project Proponent shall provide evidence to the City that any temporary nighttime lighting installed for security purposes shall be downward facing and hooded or shielded to prevent security light spillage by one foot candle to surrounding properties outside of the staging area or direct broadcast of security light into the sky.

4.2 – Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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?	☐	☐	☐	☑

a) No Impact. The California Department of Conservation Office of Land conservation publishes Farmland Conversion Reports every two years as part of its Farmland Mapping Program; these reports document land-use conversion by acreage for the majority of the counties in California. The Farmland Mapping Program produces maps and statistical data used for analyzing impacts on California's

agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The proposed project site is vacant and has been previously used for agriculture and storage, and surrounding parcels are either currently used for agriculture or have also been used for agriculture in the past. The map of Important Farmland in California (2014) prepared by the Department of Conservation identifies the site as being *Other Land*, which is land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.[2] Therefore, the site is not designated as being Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (collectively, Farmland), and the proposed project would not convert Farmland to a non-agricultural use. Therefore, no impact would occur.

b) No Impact. The project site is zoned LI – Light Industrial. No Williamson Act contracts are active for the project site.[3] Therefore, there would be no conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

c) No Impact. Public Resources Code Section 12220(g) identifies forest land as *land that can support 10-percent native tree 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.* No properties within the City of Perris are being managed or used for forest land as identified in Public Resources Code Section 12220(g). The project site is vacant, and contains no mature trees. The surrounding area consists of industrial uses, residential uses, and vacant land. No properties within the City of Perris contain forest or timber resources. Therefore, the development of this project would have no impact on any timberland zoning.

d) No Impact. No properties within the City of Perris are being managed or used for forest land as identified in Public Resources Code Section 12220(g). Thus, there would be no loss of forest land or conversion of forest land to non-forest use as a result of this project. No impact would occur.

e) No Impact. The project site is vacant site within a mostly urbanized environment. The project is surrounded by light industrial uses, residential uses, and vacant land. None of the surrounding sites contain existing Farmland and no properties within the City of Perris are being managed or used for forest land. Therefore, development of the proposed project would not change the existing environment in a manner that would result in the conversion of Farmland to non-agricultural use or forest land to non-forest use. No impact would occur.

4.3 – Air Quality

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☑	☐

An *Air Quality, Greenhouse Gas, and Energy Analysis* was prepared for the proposed project by MIG, Inc., dated October 8, 2026 (See Appendix A). A *Traffic Impact Analysis* was prepared for the proposed project by Ganddini Group, dated September 11, 2026 (see Appendix B). The information in this section is largely taken from these technical studies.

a) Less Than Significant Impact. A project that conflicts with or obstructs the implementation of the South Coast Air Quality Management District's (AQMD) 2022 Air Quality Management Plan (AQMP) for the South Coast Air Basin could hinder implementation of the AQMP, delay efforts to meet attainment deadlines, and/or interfere with South Coast AQMD efforts to maintain compliance with, and attainment of, applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the South Coast AQMD's *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if the project:

1) Is consistent with the growth assumptions in the AQMP; and
2) Does not increase the frequency or severity of an air quality standards violation or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2022 AQMP. The 2022 AQMP was developed to achieve attainment for all criteria air pollutants within the South Coast Air Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this

growth is included in the projections used to formulate the AQMP. The proposed project is consistent with the existing City of Perris General Plan Light Industrial (LI) land use designation for the project site. General Plan land use designations are used by the Southern California Association of Governments (SCAG) as the basis of growth estimates in its Regional Transportation Plan/Sustainable Communities Strategy known as Connect SoCal. These SCAG growth estimates are then used by the South Coast AQMP in developing the AQMP. The proposed project would not generate residential development. It would employ approximately 35 employees, well within the Connect SoCal 2020 growth projections for the City of Perris.[i] Therefore, the proposed project would not exceed the growth assumptions contained in the 2022 AQMP.

Consistency Criterion 2 refers to the national and California ambient air quality standards. In developing its CEQA significance thresholds, the South Coast AQMD considered the emission levels at which an individual project's emissions would be cumulatively considerable. As shown in Table 4 and Table 5 below, the proposed project would not generate construction or operational emissions in excess of South Coast AQMD criteria air pollutant significance thresholds. For the reasons described above, the proposed project would not conflict with the 2022 AQMP.

b) Less Than Significant Impact. A project may have a significant impact if project-related emissions would exceed regional standards or thresholds. The project site is located within the South Coast Air Basin, where efforts to attain state and federal air quality standards are governed by the South Coast AQMD. Both the State of California and the federal government have established health-based ambient air quality standards for seven air pollutants known as criteria pollutants. These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead. California has also established state standards for additional pollutants. The ambient air quality standards are designed to protect the health and welfare of the populace within a reasonable margin of safety. The U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the South Coast AQMD assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against the national and California ambient air quality standards. Based on these comparisons, regions are classified into one of the following categories:

- **Attainment.** A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the national and California ambient air quality standards. In addition, an area that has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the national or California ambient air quality standards are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some national and California ambient air quality standards require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and state laws require nonattainment areas to develop strategies, plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.

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i Although SCAG has adopted a newer Connect SoCal 2024, the Connect SoCal 2020 growth projects were used as the basis of the 2022 AQMP. Connect SoCal 2020 accounted for 10,300 new jobs being formed in the city between 2016 and 2045 (SCAG 2020). In April 2024, SCAG adopted Connect SoCal 2024, which identifies that employment in Perris will increase by 11,300 between 2019 and 2050 (SCAG 2024).

- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Air pollution levels are measured at monitoring stations located throughout the Basin. Table 3 summarizes the South Coast Air Basin's attainment status for the national and California ambient air quality standards.

Table 3
South Coast Air Basin Attainment Status

Pollutant	Attainment Status[A]	
	National Standards	California Standards
Ozone (1-hr)	Nonattainment	Nonattainment
Ozone (8-hr)	Nonattainment	Nonattainment
PM10 (24-hr and Annual)	Attainment	Nonattainment
PM2.5 (24-hr)	Nonattainment	--
PM2.5 (Annual)	Nonattainment[B]	Nonattainment
Carbon Monoxide	Attainment (Maintenance)	Attainment
Nitrogen Dioxide (1-hr)	Attainment	Attainment
Nitrogen Dioxide (Annual)	Attainment (Maintenance)	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Partial Nonattainment	Attainment
Visibility Reducing Particles	--	Unclassified
Sulfates	--	Attainment
Hydrogen Sulfide	--	Attainment

Source: South Coast AQMD, 2018

(A) This table summarizes the South Coast Air Basin's attainments status for the national and California ambient air quality standards (as of September 2018). This table does not present comprehensive information regarding the national and California ambient air quality standards. Each national and California ambient air quality standard has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Refer to the table source for detailed information on the national and California ambient air quality standards.

(B) The nonattainment designation was based on the 2012 PM2.5 national standard. The EPA lowered the standard (i.e., updated the standard to be more stringent), with the current national PM2.5 standard finalized in 2024. The EPA has not yet determined a designation status for the 2024 standard.

The proposed project would generate both short-term construction emissions and long-term operational emissions. The South Coast AQMD adopts rules that establish permissible air pollutant emissions levels for a variety of business, processes, operations, and products to subject to Federal and State air quality requirements. In general, construction of the proposed project and its potential emissions sources would be subject to the following South Coast AQMD rules:

- **Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in the shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent

capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.

- **Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or lower.
- **Rule 1113 (Architectural Coatings)** establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.
- **Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package, or repackage of any consumer paint thinner or multi-purpose solvent for use in the District unless consumer paint thinners or other multipurpose solvents comply with applicable volatile organic compounds content limits.

These South Coast AQMD rules would serve to limit and control the proposed project's potential to emit air pollutants.

Regional Construction Emissions

Construction of the proposed project would include site preparation, grading, building construction, paving, and architectural coating work. The proposed project's potential construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.46. Construction phase and duration and the type and amount of equipment used during construction were generated using CalEEMod default assumptions and modified as necessary to reflect the following project-specific context, information, and details:

- The demolition phase was removed, since the project site is currently undeveloped;
- The horsepower for the excavator was increased from 36 to 158 horsepower
- Fugitive dust control measures were incorporated into the model consistent with the requirements of South Coast AQMD Rule 403, Fugitive Dust.

The proposed project's maximum daily unmitigated construction emissions are shown in Table 4. Refer to Appendix A for CalEEMod output files and detailed construction emissions assumptions.

Table 4
Unmitigated Maximum Daily Regional Construction Emissions

Construction Season	Maximum Pollutant Emissions (Pounds Per Day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Summer 2025	1.2	10.6	13.8	<0.1	0.6	0.4
Winter 2025	3.4	31.7	31.2	<0.1	9.3	5.2
Summer 2026	14.6	7.2	10.8	<0.1	0.5	0.3
South Coast AQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: MIG, 2026 (See Appendix A) and South Coast AQMD, 2023.

As shown in Table 4, the proposed project's maximum daily, unmitigated criteria air pollutant emissions would be well below the South Coast AQMD's regional thresholds of significance. Project construction,

therefore, would not 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. Potential impacts would be less than significant.

Regional Operational Emissions

Once operational, the proposed project would generate long-term emissions from the following sources:

- **Area Sources.** The proposed project would generate emissions from small area sources, including landscaping equipment, the use of consumer products (e.g., paints, cleaners, and fertilizers) that result in the evaporation of chemicals into the atmosphere during product use.
- **Energy Sources.** The proposed project would generate emissions from the combustion of natural gas in water and space heating equipment.
- **Mobile Sources.** The proposed project would generate emissions from vehicles traveling to and from the project site.
- **Off-Road Sources.** The proposed project would generate emissions from three (3) forklifts that would load materials into delivery trucks onsite.
- **Stationary Sources.** The proposed project would generate wood dust from the operation of two (2) table saws. Wood dust produced by the table saw blades are not quantified in the air quality memorandum, as they would already be required to meet Occupational Safety and Health Administration (OSHA) and Cal/OSHA exposure limits.

The proposed project's operational emissions were also estimated using CalEEMod, Version 2022.1.1.46. The modeling is based on the project's first year of operations (assumed to be 2026), using default data assumptions generated by CalEEMod, modified as necessary to reflect the following project-specific context, information, and details:

- Project-specific land use information (i.e., lot acreage, building square footage, etc.) was applied to the model;
- Project-specific weekday trip generation rates were applied to the model. Weekend trips were removed from the model to reflect the project's Monday through Friday operating days.
- Passenger vehicle trip length was adjusted to 17.5 miles, consistent with the region's employee VMT rate. Truck trip length was increased to 40 miles, consistent with SCAQMD activity data for Class 8 trucks. While the project would include trucks in Class 4-7 (which have a shorter average trip length) as well as Class 8, the truck trip length was set to 40 miles for all truck types, providing a conservative estimate of mobile source emissions.
- Fleet mix was determined using the fleet mix data in the project Traffic Impact Analysis and a project-specific truck inventory (6 equipment transport trucks, 6 concrete trucks, and 12 delivery/pickup trucks). The 4+ axle trucks in the traffic report's fleet mix (i.e., trips from the freightliner semitruck and trailer) were modeled as heavy-heavy duty (HHD) trucks, the 3-axle truck trips (i.e., concrete trucks and freightliner trucks) and 2-axel truck trips (i.e., freightliner flatbed and Chevy 5500 delivery trucks) were modeled as medium-heavy duty truck trips. The remaining delivery trucks (i.e., the LDT1 and MDV trucks) would be passenger vehicles. To estimate the passenger car fleet mix consisting of employee trips and the lighter delivery trucks, the number of trips the traffic report attributed to on-street employee parking at the existing facility were assumed to be employee trips using CalEEMod default fleet mix for passenger cars, and the remaining passenger trips were assumed to be delivery pickup truck trips. This is a

conservative estimate of emissions, since it undercounts the percentage of employee trips, which would include some on-site parking at the existing facility in addition to on-street parking, compared to delivery truck trips, which would have a higher emissions rate. Since the exact fleet mix of the light-duty delivery trucks is unknown, it was assumed that there would be one LDT1, and the remaining 10 light-duty delivery trucks would be LHD2. This assumes that most of the light-duty delivery truck trips would be the highest-emitting vehicle type of the known options, providing a conservative estimate of emissions.

- Three (3) diesel forklifts were added to the modeling

The proposed project's maximum daily unmitigated operational emissions are shown in Table 5. Refer to Appendix A for CalEEMod output files and detailed operational emissions assumptions. As shown in Table 5, the proposed project's maximum daily, unmitigated operational criteria air pollutant emissions would be well below the South Coast AQMD's regional thresholds of significance. Project operation, therefore, would not 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. Potential impacts would be less than significant.

Table 5
Unmitigated Maximum Daily Regional Operational Emissions

Emissions Source	Maximum Daily Pollutant Emission (Pounds Per Day)[(A)]					
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area Sources	0.8	<0.1	1.1	<0.1	<0.1	<0.1
Energy Demand	<0.1	0.2	0.2	<0.1	<0.1	<0.1
Mobile Sources	1.5	15.5	13.4	0.2	9.7	2.8
Off-Road Sources	0.2	1.8	3.1	<0.1	0.1	0.1
Total Daily Emissions[(B)]	2.5	17.5	15.0	0.2	9.7	2.9
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: MIG, 2026 (see Appendix A) and South Coast AQMD, 2023.
(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. Maximum daily ROG, CO, SO_2 emissions occur during the summer. Maximum daily NOx emissions occur during the winter. In general, due to rounding, there is no difference between summer and winter PM10 and PM2.5 emissions levels for the purposes of this table.
(B) Totals may not equal due to rounding.

c) Less Than Significant Impact. A project may have a significant impact if project-related emissions would expose sensitive receptors to substantial air pollutant concentrations from localized pollutant emissions and/or air pollutant health risks.

The South Coast AQMD identifies sensitive receptors as populations more susceptible to the effects of air pollution than the general population. Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the South Coast AQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors. The potential sensitive air quality receptors adjacent or in close proximity to the perimeter of the project site (i.e., within 1,000 feet) include:

- A single family residence that borders the project site at its southeastern corner, in the City of Perris
- Single family residential uses that border the project site to the west, in the City of Menifee
- Single family residential uses across Sherman Road, approximately 75 feet east of the project site, in the City of Menifee
- Single family residential uses across SR-74, approximately 770 feet northeast of the project site, in the City of Menifee
- Single family residential uses south of Ethanac Road, approximately 990 feet southeast of the project site, in the City of Menifee

There are no schools within the vicinity of the project site, as the closest, Romoland Elementary School, is approximately 2,700 feet west of the project site.

Localized Construction and Operational Emissions

In addition to regional thresholds of significance, the South Coast AQMD has also developed Local Significance Thresholds (LSTs) that represent the maximum emissions from a project that are expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, which would result in significant adverse localized air quality impacts. The project's maximum daily construction emissions are compared against the South Coast AQMD's recommended LSTs in Table 6 and the project's maximum daily operational emissions are compared against the South Coast AQMD's recommended LSTs in Table 7. Consistent with the South Coast AQMD's LST methodology, the emissions included in the construction and operational LST analysis are on-site emissions only. The LST thresholds are for source receptor area 24 (Perris Valley), the source receptor area in which the project site is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance thresholds recommended for use by the South Coast AQMD, and a project size of 5 acres.

Table 6
Local Significance Threshold Construction Analysis

Construction Phase[A]	Maximum On-Site Pollutant Emissions (Pounds Per Day)			
	NOx	CO	PM10	PM2.5
Site Preparation (2025)	28.0	28.3	8.8	5.0
Grading (2025)	14.4	19.5	3.8	2.0
Building Construction (2025)	9.4	12.9	0.3	0.3
Paving (2025)	6.9	10.0	0.3	0.3
Paving (2026)	6.6	9.9	0.3	0.2
Architectural Coating (2026)	0.8	1.1	<0.1	<0.1
South Coast AQMD LSTs[B]	**270**	**1,577**	**13**	**8**
Exceeds Threshold?	***No***	***No***	***No***	***No***

Source: MIG, 2026 (see Appendix A) and SCAQMD, 2009.
(A) Emissions presented are worst-case emissions and may reflect summer or winter emission levels. In general, there is no difference between summer and winter emission levels for the purposes of this table.
(B) The LST thresholds are based on 5-acre project size and 25-meter receptor distance for source receptor area 24.

Table 7
Local Significance Threshold Operational Analysis

Emissions	Maximum On-Site Pollutant Emissions (Pounds Per Day)[A]			
	NOx	CO	PM10	PM2.5
Area Sources	<0.1	1.1	<0.1	<0.1
Energy Sources	0.2	0.2	<0.1	<0.1
Mobile Sources[B]	1.5	1.2	1.0	0.3
Off-Road Sources	1.8	3.1	0.1	0.1
Total On-Site Emissions[C]	3.5	4.5	1.1	0.4
South Coast AQMD LSTs	**270**	**1,577**	**4**	**2**
Threshold Exceeded?	***No***	***No***	***No***	***No***

Source: MIG, 2026 (see Appendix A) and South Coast AQMD, 2009.
(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table.
(B) Mobile source emissions estimates reflect potential on-site vehicle emissions only and were derived by assuming 10% of operational mobile source emissions in Table 4 will occur on site.
(C) Totals may not equal due to rounding.
(D) LST threshold values are based on a 5-acre project size and 25-meter (82-foot) receptor distance for source receptor area 24.

As shown in Table 6 and Table 7, the proposed project's on-site construction and operational emissions would not exceed the South Coast AQMD's recommended LSTs. Project construction and operation, therefore, would not expose sensitive receptors to substantial pollutant concentrations. Potential impacts would be less than significant.

Sensitive Air Quality Receptors / Health Risks

In addition to criteria air pollutants, the EPA and CARB have classified certain pollutants as Hazardous Air Pollutants (by the EPA) or Toxic Air Contaminants (by CARB), respectively. These pollutants can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer). People exposed to Hazardous Air Pollutants/Toxic Air Contaminants at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems.

A portion of the PM_{10} and $PM_{2.5}$ emissions generated during construction of the project would be diesel particulate matter, a known Toxic Air Contaminant. The proposed project's construction and operational activities would not expose adjacent residential receptors to substantial levels of diesel particulate matter that would pose a substantial adverse health risk. Potential long-term adverse health risks from diesel particulate matter are evaluated assuming a constant exposure to emissions over a 70-year lifetime, 24 hours a day, seven days a week, with increased risks generally associated with increased proximity to emissions sources. Since construction activities would only generate diesel particulate matter emissions on an intermittent, short-term basis (lasting approximately 14 months), diesel

particulate matter emissions from construction activities would be unlikely to result in adverse health effects to existing sensitive receptors that exceed the South Coast AQMD's significance criteria.[ii]

Additionally, operational activities would occur for a maximum of approximately 11 hours each day, five days a week. Operations would include a total of approximately 3 forklifts and 24 trucks (12 delivery trucks, 6 equipment transport trucks, and 6 concrete pump trucks). The equipment transport trucks and concrete pump trucks would leave the site at the start of the day and return in the afternoon and evening, respectively (PM Design Group, Inc. 2024). The delivery trucks would also leave the project site to make deliveries. The majority of truck operations would therefore occur offsite, away from the adjacent sensitive receptors. Furthermore, the onsite truck activity that would occur would not expose receptors to substantial levels of diesel particulate matter. Concrete pump trucks would not mix concrete on site (PM Design Group, Inc. 2024), and heavy-duty diesel trucks would not idle for more than five minutes, consistent with CARB's airborne toxic control measures. Potential impacts would be less than significant.

d) Less Than Significant Impact. According to the South Coast AQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed project does not include such sources but would result in the construction of a new contractor yard that could generate odors related to vehicle parking and equipment usage (e.g., oils, lubricants, fuel vapors, sawdust). Vehicle activities, such as truck maneuvering and forklift operations, that have the highest potential to generate these odors are likely to occur at the truck park area, approximately 300 feet from the nearest downwind sensitive receptors along Sherman Avenue, allowing potentially odorous compounds time and space to disperse. These activities would not generate sustained odors that would affect substantial numbers of people. Potential impacts would be less than significant.

[ii] The South Coast AQMD (2019) has established the following thresholds of significance for projects that generate Toxic Air Contaminant emissions: Maximum Incremental Cancer Risk ≥ 10 in 1 million; Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million); Chronic & Acute Hazard Index ≥ 1.0 (project increment).

4.4 – Biological Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Game 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 Game 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) Less Than Significant with Mitigation Incorporated. A biological resources desktop assessment was performed for the proposed project site utilizing governmental and industry databases such as: California Native Plant Society Rare Plant Inventory, United States Fish and Wildlife Service Information for Planning and Consultation database, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database, National Wetland Inventory, United States Geological Society quadrangle maps, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) data and maps, and a review of available aerial photography. The results of the desktop assessment are included in Appendix C. Below is a discussion of the findings of the desktop assessment.

Special Status Plant Species

The vacant project site is currently dominated by gravel and a low level of disturbed/ruderal vegetation. The entire project site is disturbed, compacted with fill, and disked on a regular basis to comply with fire-code requirements, which also limits the possibility of the establishment of native or rare vegetation on-site. The desktop assessment determined that the project site does not occur within a predetermined Survey Area for Criteria Area Species or Narrow Endemic Plant Species (RCA GIS Data Downloads 2024) that would require surveys pursuant to the Western Riverside County MSHCP. In addition, no special status plants were identified in the California Natural Diversity Database as occurring on the site or in the vicinity of the site that have potentially suitable habitats warranting field surveys. Therefore, potential impacts to candidate, sensitive, or special status plant species would not be anticipated as a result of the proposed project.

Special Status Wildlife Species

The vacant project site is currently dominated by disturbed/ruderal vegetation and gravel. The entire project site is disturbed (disked) and no natural habitat is located on-site. The desktop assessment determined that the project site does not occur within a predetermined Survey Area for Criteria Area Species, burrowing owls, invertebrates, mammals, or amphibians (RCA GIS Data Downloads 2024). As such, no additional surveys are required. Furthermore, no other special status wildlife species listed in a nine quad (greater than one-mile radius) search of the Fish and Wildlife Service, Information for Planning and Consultation, and California Natural Diversity Database databases (Appendix C) are expected to occur onsite due to a lack of suitable habitat. In addition, impacts to 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 would not occur due to the project. No impact to sensitive wildlife species would be anticipated due to the project.

Nesting Bird Habitat

Construction activities including site preparation, vegetation clearing activities, grubbing, grading, and noise/vibration from the operation of heavy equipment have the potential to result in significant direct (i.e., death or physical harm) and/or indirect (i.e., nest abandonment) impacts to nesting birds. The vacant project site is comprised of compacted fill, gravel, and limited ruderal/non-native

vegetation; however, there is still potential to impact ground-nesting birds or nesting birds residing immediately adjacent to the site within vegetation on neighboring properties. However, in the unlikely event that nesting birds protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503 and 3513 occupy the site prior to commencement of construction activities and is outlined in Mitigation Measure BIO-1.

Burrowing Owl

The desktop assessment determined that the project site does not occur within a predetermined Survey Area for the burrowing owl (*Athene cunicularia*) (RCA GIS Data Downloads, 2024). In addition, since the site is comprised of compacted fill and gravel which burrowing owl do not generally select for constructing of burrows due to the level of compaction and the availability of better sites nearby. Therefore, it has been determined that no additional surveys for burrowing owl are required. Impacts to burrowing owl would not be expected to occur due to this project.

Stephens' Kangaroo Rat

The desktop assessment determined that the project site falls within the Stephens' kangaroo rat (*Dipodomys stephensi*) Fee Area outlined in the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan. Pursuant to Riverside County Ordinance 663.10, the project applicant would be required to pay fees for the Stephens' Kangaroo Rat Habitat Conservation Plan Fee Assessment Area as established and implemented by the County. Pursuant to Riverside County Ordinance 663.10, all applicants for development permits within the boundaries of the Fee Assessment Area who cannot satisfy mitigation requirements through on-site mitigation as determined through the environmental review process shall pay a Mitigation Fee of, currently at the rate of $500.00 per gross acre for development. The Mitigation Fee shall be paid prior to issuance of a construction permits. Therefore, with the payment of this fee pursuant to existing regulations, the proposed project would have a less than significant impact on Stephen's kangaroo rat.

b) No Impact. A desktop assessment of potential U.S. Army Corps of Engineers, Regional Water Quality Control Board, CDFW, and MSHCP riparian/riverine/vernal pool jurisdictional resources determined that no MSHCP Section 6.1.2 riparian, riverine, or vernal pool resources are within or adjacent to the project site. As such, no impact would occur and an MSHCP Determination of Biological Equivalent or Superior Preservation is not required.

c) No Impact. No features located within and immediately adjacent to the project site represent jurisdictional resources that may be regulated by the Santa Ana Regional Water Quality Control Board, CDFW, or U.S. Army Corps of Engineers. Therefore, no impact to these types of resources would occur and a formal jurisdictional delineation is not required.

d) No Impact. Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information.

Relative to corridor issues, the desktop assessment was intended to focus on wildlife movement associated with the project site and the immediate vicinity. The analysis of wildlife movement corridors associated with the project site and its immediate vicinity is based on information compiled

from literature and an analysis of the aerial photographs. A literature review was conducted that included documents on island biogeography (studies of fragmented and isolated habitat "islands"), reports on wildlife home range sizes and migration patterns, and studies on wildlife dispersal. Wildlife movement studies conducted in southern California were also reviewed. The use of field-verified digital aerial data, in conjunction with the geographic information system database, allowed proper identification of vegetation communities and nearby drainage features. This information was crucial to assess the relationship of the property to large open space areas in the immediate vicinity and was also evaluated in terms of connectivity and habitat linkages.

No wildlife corridors or nursery sites are known to occur within or in the vicinity of the project site and therefore there is no expected impact to this resource. In addition, the project site is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area. Since the project site is within the boundary of the MSHCP and no linkages or wildlife corridors were identified at the project site in the MSHCP's analysis, this further supports that no wildlife corridors are present at the site. Therefore, no impact would occur as a result of the proposed project.

e) Less Than Significant Impact. Limited vegetation is present on the project site, as the site is routinely disked. According to Perris Municipal Code Section 19.71.050 (Tree Protection), tree protection extends generally to all public trees and some private trees that contribute to the city's urban canopy cover and do not fall into the category of hazardous or nuisance trees. Protected trees are trees that are protected by code from damage and unauthorized removal. These fall into two categories: protected public trees and protected privately-owned trees. The vegetation at the project site is not located within the public right-of-way along Sherman Road and is not considered *protected public trees*. Further, the vegetation located on the project site is immature, and does not include any mature trees. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This impact would be less than significant.

f) Less Than Significant Impact. The purpose of the desktop l assessment was to document the existing biological resources, identify general vegetation types, and assess the potential biological and regulatory constraints associated with the proposed development within the project site as outlined by the MSHCP. The project site is not located within an MSHCP Criteria Area, Cell Group, or Linkage Area. No MSHCP Habitat Evaluation and Acquisition Negotiation Strategy or Joint Project Review is required. The following sections summarize the project site's relationship to MSHCP criteria areas and MSHCP compliance guidelines.

Criteria Area Species Survey Area

The project site does not occur within a predetermined Survey Area for criteria species; therefore, no surveys are required (see Appendix C). Therefore, the project would be compliant with MSHCP Section 6.3.2.

Narrow Endemic Plant Species Survey Area

The project site does not occur within a predetermined Survey Area for narrow endemic plant species; therefore, no surveys are required (see Appendix C). Therefore, the project would be compliant with MSHCP Section 6.3.2.

Amphibian and Mammal Species Survey Area

The project site does not occur within the Amphibian Species Survey Area; therefore, no surveys are required (see Appendix C). The project site does not occur within the Mammal Species Survey Area; therefore, no surveys are required. For these reasons, the project would be compliant with MSHCP Section 6.3.2.

Burrowing Owl Survey Area

The project site does not occur within a predetermined Survey Area for the burrowing owl; therefore, no surveys are required (see Appendix C). For this reason, the project would be compliant with MSHCP Section 6.3.2.

MSHCP Riparian/Riverine Areas and Vernal Pools

No MSHCP Section 6.1.2 riparian, riverine, or vernal pool resources were documented within or adjacent to the project site. No suitable riparian scrub, forest, or woodland habitat for the least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo was documented within or adjacent to the project site. Therefore, the project would be compliant with MSHCP Section 6.1.2.

Urban/Wildlands Interface

The MSHCP Urban/Wildlands Interface guidelines presented in MSHCP Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses, and residential developments in proximity to a MSHCP Conservation Area. The project site is not located adjacent to an existing or proposed MSHCP Conservation Area. Therefore, the project would be consistent with MSHCP Section 6.1.4.

Fuels Management

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. The project site is not located adjacent to an existing or proposed MSHCP Conservation Area. Therefore, the project would be consistent with MSHCP Section 6.4.

MSHCP Local Development Mitigation Fee

The project applicant would be required to pay MSHCP Local Development Mitigation fees as established and implemented by the City of Perris. With the payment of these fees, potential impacts from the proposed project would be less than significant.

Mitigation Measure

BIO-1 **Pre-Construction Nesting Bird Survey.** In order to avoid violation of the Migratory Bird Treaty Act 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 Migratory Bird Treaty Act or the California Fish and Game Code are present within 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 project biologist shall immediately establish a conservative avoidance buffer surrounding the nest based on their best professional judgement and experience. The project 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) to determine the efficacy of the buffer. If the project biologist determines that such project activities may be causing an adverse reaction, the project 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 project biologist shall review and verify compliance with these nesting avoidance buffers and shall 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 City of Perris Planning Division for mitigation monitoring compliance record keeping.

4.5 – Cultural Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 *Historic/Archaeological Resources Survey Report* was prepared for the proposed project site by CRM TECH, dated December 5, 2024 (see Appendix D). The information in this section is largely taken from this report.

a) No Impact. A significant impact would occur if the proposed project would cause a substantial adverse change in the significance of a historic resource listed or eligible for listing in the California Resources of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). The CEQA Guidelines state the term "historical resources" applies to resources that meet any of the following criteria for listing on the California Register of Historical Resources:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC Section 5024.1(c)).

A records search and field reconnaissance conducted for the project *Historic/Archaeological Resources Survey Report* did not identify any resources that are listed or eligible for listing in the California Register of Historical Resources or for local designation, and neither structure qualifies as a "historical resource." The Perris Valley Historical Association has identified fifty-seven structures of local interest. All structures indicated are within the geographic area subject to the City of Perris Downtown Specific Plan.[4] The undeveloped project site is not located in the Downtown Specific Plan and there are no buildings, structures, or features on the site that could be listed as a "historical resource." The project site was formerly used for agricultural and recreational vehicle storage purposes and is not known to be associated with an important historical period or important persons from the past. The project would not have any physical impacts outside the designated project area boundary and would not result in

any adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. Therefore, no impacts to historic resources would result with the implementation of the proposed project and no mitigation is required.

b) Less Than Significant with Mitigation Incorporated. Given that the project site has been disturbed by past agricultural uses over time, any archaeological resources that may exist likely have been previously unearthed or disturbed. Therefore, significant surficial and subsurface archaeological resources are unlikely to occur on the project site or be encountered during earthwork activities. However, Mitigation Measure CUL-1 has been incorporated to address the unlikely event that archeological materials may be uncovered during ground-disturbing activities. With implementation of Mitigation Measure CUL-1, potential impacts to unknown archaeological resources would be less than significant.

c) Less Than Significant with Mitigation Incorporated. No known human remains are anticipated to be located on or beneath the project site. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the project, and it is possible to encounter buried human remains during construction. Mitigation Measure CUL-2 has been incorporated to reduce potential impacts to previously undiscovered human remains. With implementation of Mitigation Measure CUL-2, potential impacts would be less than significant.

Mitigation Measures

CUL-1 **Archaeological Monitoring.** 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). The primary task of the project archaeologist shall be to monitor the initial ground-disturbing activities at both the project site and any off-site project-related improvement areas for the identification of any previously unknown archaeological and/or cultural resources. 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 project site or within off-site project improvement areas until the archaeologist has been approved by the City.

The project archaeologist shall be responsible for monitoring ground-disturbing activities, 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 project 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 or within off-site project improvement areas, 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 project 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 and the Soboba 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 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 artifacts as deemed possible. The designated Native American 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 Native American tribe. If the find is determined to be of sacred or religious value, the Native American tribal representative will work with the City and project archaeologist to protect the resource in accordance with tribal requirements. All analysis shall be undertaking in a manner that avoids destruction or other adverse impacts.

In the event that human remains are discovered at the project site or within off-site project improvement areas, Mitigation Measure CUL-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 would be subject to a fully executed relocation/reburial agreement with the assisting Native American tribe. This shall include, but not be limited to, an agreement that artifacts will 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 project 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.

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 project 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 South Coastal Information Center, and the Native American tribe(s) involved with the project.

CUL-2 **Discovery of Human Remains.** In the event that human remains (or remains that may be human) are discovered at the project site or within the off-site project improvement areas during ground-disturbing activities, the construction contractors, 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 would 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 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 will 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 will be filed with the South Coastal Information Center.

4.6 – Energy

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption or energy resources, during project construction or operation?	☐	☐	☑	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☑	☐

An *Air Quality, Greenhouse Gas, and Energy Analysis* was prepared for the proposed project by MIG, Inc., dated October 8, 2026 (see Appendix A). The information in this section is largely taken from this technical study.

a) Less Than Significant Impact. Implementation of the project would increase the demand for electricity and natural gas at the project site and gasoline consumption in the region during construction and operation. Construction activities associated with the proposed project would require the use of heavy-duty, off-road equipment and construction-related vehicle trips that would combust fuel, primarily diesel and gasoline. Heavy-duty construction equipment would be required to comply with the California Air Resources Board (CARB) airborne toxic control measures, which restrict heavy-duty diesel vehicle idling to five minutes. As estimated using CalEEMod, construction activities would consume approximately 27,581 gallons of diesel fuel to power on-site, off-road heavy-duty construction equipment. Worker, vendor, and haul truck trips during construction activities are anticipated to consume approximately 4,273 gallons of gasoline, 2,420 gallons of diesel, and 987 kilowatt-hours of electricity.

Once operational, the proposed project would consume energy for vehicle trips, yard equipment, and building operations. As estimated using CalEEMod and EMFAC, the proposed project would annually consume approximately 628 megawatt-hours, 862 million British thermal units of natural gas, 100,043 gallons of diesel and 80,527 gallons of gasoline (combined building and mobile sources).

Electricity and natural gas fuel consumption are energy sources necessary to operate and maintain the proposed project in a safe manner. Lighting is essential for safety and security and natural gas consumption is needed for water heating and other temperature-controlled activities. Due to energy efficiency standards being improved over time, the proposed project would not result in the wasteful, inefficient, or unnecessary use of energy resources. Impacts would be less than significant.

b) Less Than Significant Impact. The City of Perris Climate Action Plan (CAP) contains the Community Energy Action Plan (CEAP). The project would comply with the State Energy Reduction Measures included in the CEAP which would be implemented at the state level (e.g.: R1-E1: Renewable

Portfolio Standard, R1-E2 and R1-E3: Assembly Bill 1109 Energy Efficiency Standards for Lighting). The proposed project would also comply with the CEAP's local energy reduction measures, including:

- R2-E2: New Commercial Energy Efficiency. The CEAP assumes new development will increase energy efficiency by an average of 10% beyond 2008 Title 24 standards and will decrease natural gas and electricity usage by 25%. Recommended options for achieving energy efficiency include installing Energy Star or equivalent appliances, windows, lighting, and electronics, installing solar water heaters, using natural heating, cooling, lighting, and ventilation, and installing light-colored cool pavements. By complying with the 2022 CALGreen Code, the proposed project would increase energy efficiency beyond the 2008 standards and would be consistent with Measure R2-E4.
- R2-E4: Commercial Renewable Energy Requirements. The proposed project would be solar-ready, consistent with the 2022 CALGreen Code and Measure R2-E4.

As discussed above, the proposed project would be built to the latest CALGreen Code. For these reasons, the proposed project would not conflict with or obstruct a state or local plan for renewable energy. Impacts would be less than significant.

4.7 – Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 (1997), 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?	☐	☑	☐	☐

A *Geotechnical Engineering Investigation* was prepared for the project site by Moore Twining Associates, Inc., dated November 8, 2024 (see Appendix E). A *Paleontological Resources Assessment Report* was prepared for the proposed project site by CRM TECH, and is dated December 5, 2024 (see Appendix F). The information in this section is largely taken from these technical studies.

a.i) No Impact. According to the *Geotechnical Engineering Investigation*, the project site is not located within an Alquist-Priolo Earthquake Fault Zone or other known earthquake fault. The project site is located roughly halfway between the Elsinore Fault Zone to the southwest and the San Jacinto Fault Zone to the northeast. The closest mapped active faults are the Casa Loma Fault (part of the Elsinore Fault Zone), which is located approximately 9.75 miles southwest of the site, and the Glen Ivy North Fault (part of the San Jacinto Fault Zone), which is located approximately 10 miles northeast of the project site. No impact would occur.

a.ii) Less Than Significant Impact. The project site is subject to strong seismic ground shaking, as are the majority of properties in Southern California. The project would be subject to the seismic design criteria of the California Building Code. The 2022 California Building Code (California Building Code, California Code of Regulations, Title 24, Volume 2) contains seismic safety provisions with the aim of preventing building collapse during a design earthquake, so that occupants would be able to evacuate after the earthquake. A design earthquake is one with a two percent chance of exceedance in 50 years, or an average return period of 2,475 years. The California Building Code is intended to provide minimum requirements to prevent major structural failure and loss of life. Adherence to these requirements would reduce the potential of the proposed structures from collapsing during an earthquake, thereby minimizing injury and loss of life. Although structures may be damaged during earthquakes, adherence to seismic design requirements would minimize damage to property and life within the structure because the structure is designed not to collapse. Therefore, adherence to existing regulations would reduce the risk of loss, injury, and death due to strong ground shaking to a less than significant level.

a.iii) 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. According to the City of Perris General Plan Safety Element Figure S-6 (Earthquake Faults and Liquefaction Susceptibility), the project site is not located within a Liquefaction Susceptibility Zone.[5] Since groundwater is greater than 50 feet below the project site, the Geotechnical Engineering Investigation concludes that the potential for liquefaction is low. Therefore, the proposed project would not expose people or structures to seismic-related ground failure, including liquefaction. The potential impact would be less than significant.

a.iv) No Impact. The proposed project site and surrounding area is relatively flat. In addition, according to the City of Perris General Plan Safety Element Figure S-7 (Landslide Susceptibility), the project site is not located within a Landslide Susceptibility Zone.[6] Therefore, no impact would occur.

b) Less Than Significant Impact. Topsoil is used to cover surface areas for the establishment and maintenance of vegetation due to its high concentrations of organic matter and microorganisms. The project has the potential to expose surficial soils to wind and water erosion during construction activities. However, wind erosion would be minimized through soil stabilization measures required by South Coast AQMD Rule 403 (Fugitive Dust), such as daily watering. Water erosion would be prevented through the City's standard erosion control practices required pursuant to the California Building Code and the National Pollution Discharge Elimination System (NPDES) regulations, such as silt fencing, fiber rolls, or sandbags. Following project construction, the site itself would consist of mostly impervious surfaces and landscaping; as such, erosion would not occur during project operation. Therefore, with implementation of existing regulations, potential impacts related to soil erosion would be less than significant.

c) Less Than Significant Impact. Impacts related to liquefaction and landslides are discussed above in Sections 4.6.a and 4.6.b. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to gravity and earthquake shaking combined. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e. retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope. Due to the absence of any channel within or near the project site, and the subsurface soil conditions that have a low liquefaction susceptibility, the potential for lateral spread occurring on the project site is considered to be negligible. The proposed project is required to be constructed in accordance with the California Building Code. Compliance with existing California Building Code regulations would limit potential hazard impacts arising from unstable soils to less than significant levels.

d) Less Than Significant Impact. The California Building Code requires special design considerations for foundations of structures built on soils with expansion indices greater than 20. According to the Geotechnical Engineering Investigation, an expansion index test conducted from a near surface sample containing a mixture of sandy lean clay and clayey sand and collected from depths of about 2 to 4 feet BSG from boring B-2 indicated an expansion index of 15. Based on the results of Geotechnical Engineering Investigation, the near surface soils exhibit a very low expansion potential. The project would be required to be constructed in accordance with the California Building Code. Compliance with existing California Building Code regulations would limit impacts arising from unstable soils. Therefore, potential impacts would be less than significant.

e) No Impact. The proposed project would connect to the existing Eastern Municipal Water District (EMWD) sewer system and would not require the use of septic tanks. No impact will occur.

f) Less Than Significant with Mitigation Incorporated. The records search by performed by CRM TECH at the Western Science Center identified no known paleontological localities within the project area or a one-mile radius. According to the Western Science Center, the surface soils in the project area consist of old alluvial fan deposits from the late to middle Pleistocene Epoch, and the Pleistocene units are considered to have a high paleontological sensitivity. Based on this sensitivity, the Western Science Center considers any fossil remains recovered from the project vicinity to be scientifically significant and concludes that excavations associated with the proposed project would impact paleontologically sensitive soils and recommends a paleontological resource mitigation program in

order to monitor, salvage, and curate any fossil materials that might be recovered. In addition, the project site is located within Paleontological Sensitivity Area 2 (High Sensitivity) as shown in Exhibit CN-7 of the City of Perris General Plan Conservation Element. Conservation Element implementation measure IV.A.4 requires paleontological monitoring of all projects within Paleontological Sensitivity Area 2 once subsurface excavation begins. This requirement is set forth in Mitigation Measure GEO-1. With implementation of Mitigation Measure GEO-1, potential impacts to paleontological resources would be less than significant.

Mitigation Measure

GEO-1: Prior to the issuance of grading permits, the project proponent shall submit to and receive approval from the City a Paleontological Resource Impact Mitigation Monitoring Program (PRIMMP). The PRIMMP shall include the provision of a qualified professional paleontologist (or his or her trained paleontological monitor representative) during on-site full time for any project-related subsurface excavation. Selection of the paleontologist shall be subject to approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the paleontologist has been approved by the City.

Monitoring shall be restricted to undisturbed subsurface areas of older quaternary alluvium. The project paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The project paleontologist shall also remove samples of sediments which are likely to contain fossil remains of small vertebrates or in vertebrates. The project paleontologist shall have the power to temporarily halt or divert grading equipment to allow for the 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 procedures 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, would signify completion of the program to mitigate potential impacts on paleontological resources.

4.8 – Greenhouse Gas Emissions

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐

An *Air Quality, Greenhouse Gas, and Energy Analysis* was prepared for the proposed project by MIG, Inc., dated October 8, 2026 (see Appendix A). The information in this section is largely taken from this technical study.

a) Less Than Significant Impact. Gases that absorb and emit infrared thermal radiation (heat) in the atmosphere and affect regulation of the Earth's temperature are known as greenhouse gases (GHGs). There are many compounds present in the Earth's atmosphere which are GHGs, including but not limited to water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). GHGs allow solar radiation (sunlight) to enter the atmosphere freely. When solar radiation strikes the earth's surface, it is either absorbed by the atmosphere, land, and ocean surface, or reflected back toward space. The land and ocean surface that has absorbed solar radiation warms up and emits infrared radiation toward space. GHGs absorb some of this infrared radiation and "trap" the energy in the earth's atmosphere. Entrapment of too much infrared radiation produces an effect commonly referred to as the "greenhouse effect." Human activities since the beginning of the Industrial Revolution (approximately 1750) have increased atmospheric GHG concentrations. Average global surface temperatures have risen as a result of GHG emissions. This increase in globally averaged surface temperatures is commonly referred to as "Global Warming," although the term "Global Climate Change" is preferred because effects associated with increased GHG concentrations are not just limited to higher global temperatures.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs – carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride – and two groups of gases – hydrofluorocarbons and perfluorocarbons. These GHG are the primary GHG emitted into the atmosphere by human activities. The six most common GHG's are carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and the corresponding effects of global climate change (e.g., rising temperatures, increased severe weather events such as drought and flooding). GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential. The reference gas for measuring global warming potential is CO_2, which has a global warming potential of one. By comparison, CH_4 has a global warming potential of 25, which means that one

molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHGs by their global warming potential determines their carbon dioxide equivalent, which enables a project's combined global warming potential to be expressed in terms of mass CO_2 emissions (referred to as CO_2 equivalents, or CO_2e).

For GHG emissions and global warming, there is not, at this time, one established, universally agreed-upon "threshold of significance" by which to measure an impact. While CARB published some draft thresholds in 2008, they were never adopted, and CARB recommended that local air districts and lead agencies adopt their own thresholds for GHG impacts.

The South Coast AQMD has been evaluating GHG significance thresholds since April 2008. In December 2008, the South Coast AQMD adopted an interim 10,000 metric tons of CO_2e ($MTCO_2e$) per year screening level threshold for stationary source/industrial projects for which the South Coast AQMD is the lead agency. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses:

- Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:
    - 10,000 $MTCO_2e$ per year for all industrial projects.
    - Option 1
        - 3,500 $MTCO_2e$ per year for residential projects; 1,400 $MTCO_2e$ per year for commercial projects; 3,000 $MTCO_2e$ per year for mixed-use projects.
    - Option 2
        - 3,000 $MTCO_2e$ per year for all non-industrial land use types.
- Tier 4 has three options for projects that exceed the screening values identified in Tier 3:
    - Option 1: Reduce emissions from business-as-usual by a certain percentage (currently undefined); or
    - Option 2: Early implementation of applicable AB 32 Scoping Measures; or
    - Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 $MTCO_2e$ per year per service population by 2020 and 4.1 $MTCO_2e$ per year per service population by 2035. For project-level analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 $MTCO_2e$ per year per service population for the 2020 and 2035 calendar years, respectively.

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. If CARB adopts statewide significance thresholds, South Coast AQMD staff plan to report back to the South Coast AQMD Governing Board regarding any recommended changes or additions to the South Coast AQMD's interim threshold. The only update to the South Coast AQMD's GHG thresholds since 2010 is that the 10,000 $MTCO_2e$ per year 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, and because the City of Perris does not presently have its own thresholds of significance, the City has been using the South Coast AQMD's 10,000 $MTCO_2e$ per year threshold for industrial projects and the draft thresholds for non-industrial projects for the purpose of evaluating the GHG impacts associated with proposed general development projects. This analysis uses the South Coast AQMD's 10,000 $MTCO_2e$ per year GHG threshold to evaluate the proposed project's GHG emissions levels. This approach is consistent with CEQA Guidelines Section 15064.7(b), which states that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The South Coast AQMD is the regional authority on air emissions and has published documentation for threshold development (South Coast AQMD 2008).

Project GHG Emissions

The proposed project would generate GHG emission from both short-term construction and long-term operational activities. Construction activities would generate GHG emissions primarily from equipment fuel combustion as well as worker, vendor, and haul trips to and from the project site during site preparation, grading, building construction, paving, and architectural coating activities. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. The South Coast AQMD recommends amortizing construction GHG emissions over a 30-year period and combining construction emissions with operational emissions estimates. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. Once operational, the proposed project would generate GHG emissions from area, energy mobile, water/wastewater, and solid waste sources. The proposed project's construction and operational emissions were estimated using CalEEMod, Version 2022.1.1.46, using the same default assumptions and project specific variables applied to the air quality emissions estimates. The proposed project's total GHG emissions are shown in Table 8.

Table 8
Project Greenhouse Gas Emissions

GHG Emission Source	GHG Emissions (Metric Tons per Year)
Area	0.5
Energy	132.1
Mobile	1,974.0
Refrigerants	0.5
Solid Waste	8.5
Water	13.1
Off-Road	54.1
Construction(A)	11.2
Total(B)	2,721.1
South Coast AQMD Threshold of Significance	**10,000**
Threshold of Significance Exceeded?	***No***

Source: MIG, 2026 (see Appendix A) and South Coast AQMD, 2010.
(A) Construction emissions value has been amortized over a 30-year assumed project lifetime.
(B) Totals may not equal due to rounding.

As shown in Table 8, the proposed project's potential increase in GHG emissions would be below the South Coast AQMD's recommended GHG emissions threshold of significance. The proposed project,

therefore, would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. The potential impact would be less than significant.

b) Less Than Significant Impact. The proposed project also would not conflict with CARB's 2022 Scoping Plan or SCAG's Connect SoCal 2024. Nearly all the specific measures identified in the 2022 Climate Change Scoping Plan would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. Although most of these measures would be implemented at the State level, the GHG reductions achieved by these state measures would be realized at the local level. For example, regardless of actions taken by the City of Perris or Riverside County, emissions generated through gasoline combustion in motor vehicles within the county would produce less GHG in 2030 than they do now. Similarly, the electricity consumed by on-site sources (e.g., lighting, building systems, etc.) would become greener over time as the State's Renewable Portfolio Standard (RPS) increases, consistent with the benchmarks established in SB 100 and SB 1020. The proposed project, therefore, would not directly conflict with any of the specific measures identified in the 2022 Climate Change Scoping Plan. Additionally, the project would not conflict with SCAG's Connect SoCal 2024. The project would have a less than significant VMT impact, would be located within 500 feet of a bus stop, and would include EV infrastructure consistent with the 2025 CalGreen Code.

The City of Perris has implemented a CAP to address GHG emissions related to transportation, commercial and industrial energy, residential energy, waste, and wastewater. The Perris CAP builds off of the Western Riverside Council of Governments CAP, which the City participated in. The Perris CAP evaluates current GHG emissions, forecasts "business-as-usual" emissions, introduces greenhouse gas reduction measures at the state, regional, and local level, and establishes targets of a 15% reduction in GHG emissions below 2010 levels by 2020 and a 47.5% reduction in GHG emissions below 2010 levels by 2035. By implementing all GHG reduction measures, the CAP estimates it will reduce GHG emissions by 49% below 2010 levels by 2035, which would meet its target. The proposed project would:

- Be consistent with CAP growth projections[iii]
- Be subject to the latest State standards, which exceed the requirements of State and Regional measures in the CAP that were designed to achieve emissions targets (e.g.: SR-1: Renewable Portfolio Standard, SR-2: 2013 California Building Energy Efficiency Standards, Measure SR-6: Pavley and Low Carbon Fuel Standard, and SR-13: Construction & Demolition Waste Diversion)
- Provide electric vehicle charging infrastructure (consistent with the 2025 CALGreen Code and CAP Measure SR-12)

For these reasons, the proposed project would not result in significant GHG emissions nor conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions. Potential impacts would be less than significant.

[iii] The Perris CAP projects that there will be 14,406 new jobs between 2010 and 2035. The proposed project is anticipated to support approximately 35 jobs, which is within the CAP's employment projections.

4.9 – Hazards and Hazardous Materials

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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* (Phase I ESA) was prepared for the proposed project by Converse Consultants, dated October 21, 2024 (see Appendix G). Some of the information in this section is taken from the *Phase I ESA*.

a) Less Than Significant Impact. Implementation of the project could create significant hazards as a result of the routine transport, use, or disposal of hazardous materials. No Recognized Environmental Conditions, Controlled Recognized Environmental Conditions, Historical Recognized Environmental Conditions, or significant data gaps in connection with the project site were identified during the *Phase I ESA* preparation. Below is a discussion of other potential hazards related to the routine transport, use, or disposal of hazardous materials.

Short-term (Construction Period) Activities

Project construction activities would involve the temporary use and transport of fuels, lubricating fluids, solvents, and other hazardous materials. The contractor would be required to develop and adhere to a Health and Safety Plan, which pursuant to California state Health and Safety Code Chapter 6.95, Division 20 (Sections 25500-25532), would minimize potentially hazardous effects of handling potentially hazardous materials during construction. Project compliance with federal, state, and local regulations pertaining to safe transport, use, handling, and disposal of hazardous materials would reduce these effects, and this potential would be considered a less than significant impact.

Long-term (Operational) Activities

Widely used hazardous materials common at commercial contractor yards include paints and other solvents, cleaners, and pesticides. Operation of the proposed building would involve the use of cleaning solutions for daily operation and paints for routine maintenance and re-coating of structures. The remnants of these and other products are disposed of as household hazardous waste that includes used dead batteries, electronic wastes, and other wastes that are prohibited or discouraged from being disposed of at local landfills. Use of common household hazardous materials and their disposal does not present a substantial health risk to the community. Use of the proposed building would generate limited amounts of household hazardous waste. The San Bernardino County Fire Protection District operates a Household Hazardous Waste Program, with 14 permanent household hazardous waste collection facilities. These facilities would allow easy disposal of any household hazardous waste generated on-site as part of project operation. Through adherence to local regulations, the use of common household hazardous materials, created waste, and their disposal do not present a substantial health risk to the community.

Treated wood waste is wood that has been treated with chemicals to protect it from decay and pests, and is considered hazardous waste. Treated wood waste contains hazardous chemicals that can be harmful to human health and the environment. These chemicals include: arsenic, chromium copper, creosote, and pentachlorophenol. Exposure to treated wood waste can occur through dermal contact, or by inhaling or ingesting particulate from the wood, such as sawdust or smoke. The proposed lumber yard would be used to produce form boards for use in concrete formwork. The form boards would be made from Laminated Strand Lumber, which is generally considered to be non-toxic, safe, and eco-friendly. Furthermore, project operation would not include treatment of wood or application of treatment chemicals to wood. Finally, operation of the lumber yard would not include use of lumber treated with formaldehyde, chromated copper arsenate, creosote, copper azote, pentachlorophenol, or borate and, therefore, would not generate treated wood waste.

Operation of the proposed mechanics shop would involve repair and maintenance of company-owned trucks used on-site and for transportation of the form boards and stakes to project sites. Operation of

the proposed mechanics shop would involve the routine transport and use of petroleum gasoline, oils, and other petroleum-based products. However, the project would be required to comply with all existing federal, state, and local regulations for the storage, disposal, and transport of petroleum products.
For the reasons stated above, impacts associated with the routine transport, use, or disposal of hazardous materials or wastes as a result of project operation would be less than significant.

b) Less Than Significant Impact. According to the State Water Resources Control Board, there are no open cases of leaking underground storage tanks within one-quarter mile of the project site.[7] As such there would be a less than significant impact related to the release of hazardous materials into the environment as a result of development of the proposed commercial contractor's yard.

Short-term (Construction Period) Activities. Construction of the proposed project would require the use and transport of hazardous materials such as asphalt, paints, and other solvents. Construction activities could also produce hazardous wastes associated with the use of such products. Construction of the proposed project would require ordinary construction activities and would not require a substantial or uncommon amount of hazardous materials to complete. All hazardous materials are required to be utilized and transported in accordance with their labeling pursuant to federal and state law. In addition, routine construction practices include good housekeeping measures to prevent/contain/clean-up spills and contamination from fuels, solvents, concrete wastes, and other waste materials. There are no buildings or structures on the site that would be demolished as part of project construction, and the release of asbestos containing materials or lead-based paint would not occur. Therefore, construction-related impacts would be less than significant with adherence to existing regulations.

Long-term (Operational) Activities. With regard to operation, the transport, use, and/or disposal of hazardous materials is not associated with or expected with the proposed project. Additionally, while operation of the mechanics shop would involve use of oils and other petroleum-based products, the project would be required to adhere to existing federal, state, and local regulations for the storage, disposal, and transport of petroleum. Therefore, the project would not 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. Potential impacts would be less than significant.

c) No Impact. There are no existing or proposed schools within one quarter mile of the project site. The closest school to the project site, Romoland Elementary School, is located approximately 0.5 mile east of the project site. The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes. Therefore, the project would not 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 would occur.

d) No Impact. The project site is not listed on the state *Cortese List*, a compilation of various sites throughout the state that have been compromised due to soil or groundwater contamination from past uses.[8]

Based upon review of the *Cortese List*, the project site is not:

- listed as a hazardous waste and substance site by the Department of Toxic Substances Control,[9]
- listed as a leaking underground storage tank site by the State Water Resources Control Board,[10]
- listed as a hazardous solid waste disposal site by the State Water Resources Control Board,[11]
- currently subject to a Cease and Desist Order or a Cleanup and Abatement Order as issued by the State Water Resources Control Board,[12] or

- developed with a hazardous waste facility subject to corrective action by the Department of Toxic Substances Control.[13]

e) Less Than Significant Impact. The project site is located just over two miles northwest of the Perris Valley Airport and Skydiving Center. The Perris Valley Airport and Skydiving Center is a privately owned and privately used airport. The project site is also located approximately 11 miles southeast of March Air Reserve Base/Inland Port Airport (March ARB/IPA). The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (March ARB/IPA ALUCP) divides the area close to the airport into zones based on proximity to the airport and perceived risks. The project site is located within the Airport Compatibility Zone D. Zone D represents the area on the periphery of flight corridors where the risk concern is primarily for uses such as high intensity uses in confined areas where the consequences could be severe.

The project site is also located within the 2018 March ARB Air Installations Compatible Use Zones (AICUZ) Study area. The purpose of this study is to promote public health, safety, and general welfare in areas surrounding the base while seeking development compatible with the defense flying mission. The AICUZ Program recommends that noise levels, Clear Zones, Accident Potential Zones, and flight clearance requirements associated with military airfield operations be incorporated into local community planning programs in order to maintain the airfield's operational requirements while minimizing the impact to residents in the surrounding community. The project site is not located within any Accident Potential Zone.

As required by Perris Municipal Code Chapter 19.51 March ARB/IP Airport Overlay Zone (AOZ), development within the Airport Overlay Zone must be compatible with the March ARB/IPA ALUCP. The Riverside County Airport Land Use Commission (ALUC) requires a review and consistency determination when any project is seeking legislative action. The proposed project is consistent with the existing City of Perris land use and zoning designations for the project site. As such, a legislative approval and ALUC review is not required for the proposed project.

The City's noise compatibility standards in Perris Municipal Code Section 19.51.080, prevents the establishment of noise-sensitive land uses such as new residences, schools, libraries, museums, hotels, motels, hospitals, nursing homes, places of worship, in portions of the airport environ that are exposed to significant levels of aircraft noise. This area is also located within the 55 dBA Community Noise Equivalent Level (CNEL) noise contour where potential noise impacts from March ARB/IPA are considered moderate to low with concerns focused primarily on individual loud events. In addition, the proposed project is not noise-sensitive land use. As such, the proposed project would not expose people working in the project area to excessive noise levels from aircraft operations.

Therefore, the proposed project would not result in a safety hazard or excessive noise for people working in the project area. The potential impact of the project would be less than significant.

f) Less Than Significant Impact. The project site is located along Sherman Road and near Ethanac Road which have both been identified as Evacuation Routes in the City of Perris General Plan Safety Element. These roadways are identified as potential evacuations routes due to their connectivity to other major highways and roadways within Riverside County. The City of Perris participates in the County of Riverside Multi-Jurisdictional Local Hazard Mitigation Plan which outlines requirements for emergency access and standards for emergency responses. Construction work in Sherman Road associated with the project would be limited to lateral utility connections and would be limited to nominal potential traffic diversion. Hence, the Project would not result in closures of local roadways that may have an effect on emergency access in the vicinity of the Project site. The project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan

because no permanent public street or lane closures are proposed. Therefore, potential project impacts would be less than significant.

g) No Impact. The project site is not located within or near any Fire Hazard Severity Zone in a State Responsibility Area or other wildland areas.[14, 15] The nearest such area is approximately 2.43 miles southwest of the project site. Therefore, the proposed project would not be exposed to risks from wildland fires. No impact would occur.

4.10 – Hydrology and Water Quality

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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;	☐	☐	☑	☐
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 sources of polluted runoff; or	☐	☐	☑	☐
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?	☐	☐	☑	☐

A *Project Specific Water Quality Management Plan* was prepared for the proposed project by JM Civil Engineering, dated October 7, 2024 (see Appendix H). The information in this section is largely taken from this technical study.

a) Less Than Significant Impact. A project normally would have an impact on surface water quality if discharges associated with the project would create pollution, contamination, or nuisance as defined in Water Code Section 13050, or that cause regulatory standards to be violated as defined in the applicable National Pollutant Discharge Elimination System (NPDES) stormwater permit or Water Quality Control Plan for a receiving water body. For the purpose of this specific issue, a significant impact could occur if the proposed project would discharge water that does not meet the quality standards of the agencies which regulate surface water quality and water discharge into stormwater drainage systems. Significant impacts could also occur if the project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board. These regulations include preparation of a Water Quality Management Plan (WQMP) to reduce potential post-construction water quality impacts.

Short-term (Construction Period) Activities

Three general sources of potential short-term, construction-related stormwater pollution associated with the proposed project include: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth-moving activities which, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. During site grading and excavation activities, bare soil would be exposed to wind and water erosion. If precautions are not taken to contain sediments, construction activities could produce sediment-laden storm runoff. In addition to increased erosion potential, hazardous materials associated with construction equipment could adversely affect water quality if spilled or stored improperly. With regard to polluted runoff, pursuant to Perris Municipal Code Chapter 14.22 (Stormwater/Urban Runoff Management and Discharge Control), all construction projects are required to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) that incorporates Best Management Practices (BMPs) to prevent erosion from entering the municipal stormwater system during construction activities. BMPs typically include drainage controls such as detention ponds, dikes, filter berms, and downdrains to prevent runoff. As such, the required preparation of an SWPPP would ensure water quality impacts from construction activities would be less than significant.

Long-Term (Operational) Activities

Proposed project development would result in approximately 80 percent impervious surfaces on the project site. The approximately 5.39-acre site would be completely developed with the proposed building, the lumber yard, parking, and landscaping. Runoff from the developed site could result in increased potential water contamination from urban pollutants that are commonly found in mechanic shop uses, on building rooftops, in surface parking lots, and from industrial uses such as the proposed lumber yard.

Operation of the mechanics shop portion of the proposed building would involve repair and maintenance of company-owned trucks used on-site and for transportation of the form boards and stakes to project sites. Operation of the proposed mechanics shop would involve the routine transport and use of petroleum gasoline, oils, and other petroleum-based products. However, the mechanics shop would not generate any wastewater as a result of operation. In addition, operation of the mechanics shop would be required to comply with all existing federal, state, and local regulations for the storage, disposal, and transport of petroleum products. Therefore, adherence to existing regulations would ensure that potential impacts from operation of the proposed mechanics shop would be less than significant.

Operation of the office and storage portions of the proposed building would not result in the generation of hazardous wastewater that would require any special waste discharge permits. All wastewater associated with the building's interior plumbing system would be discharged into the local sewer system for treatment at the regional wastewater treatment plant. The proposed project would include drainage improvements as part of the building construction and throughout the parking area. Stormwater would be captured in the proposed building's external drainage and gutter system and the impervious areas of the site (non-landscaped areas) and would be directed to three storm drain inlets on the site – two located in the parking lot area and one located in the lumber yard area. The water would then be treated in an on-site detention basin before being directed into the existing storm drain system in Sherman Road. Therefore, potential wastewater and stormwater impacts from operation of the proposed building would be less than significant.

Operation of the proposed lumber yard would include preparation of form boards and stakes as well as cutting of dimensional lumber prior to storage and/or transport to job sites. Treated wood waste is wood that has been treated with chemicals to protect it from decay and pests and is considered hazardous waste. Treated wood waste contains hazardous chemicals that can be harmful to human health and the environment. These chemicals include: arsenic, chromium copper, creosote, and pentachlorophenol. Exposure to treated wood waste can occur through dermal contact, or by inhaling or ingesting particulate from the wood, such as sawdust or smoke. The proposed lumber yard use would not utilize any hazardous materials, treated wood products, or potential pollutants that could runoff the site. The lumber yard would be used to produce form boards for use in concrete formwork. The form boards would be made from Laminated Strand Lumber, which is generally considered to be non-toxic and safe. Operation of the lumber yard would not include use of treated lumber that contains potential pollutants such as formaldehyde, chromated copper arsenate, creosote, copper azote, pentachlorophenol, or borate. Furthermore, operation of the lumber yard would not include treatment of wood or application of treatment chemicals to wood. The minimal amount of sawdust and wood waste that would be generated as result of operation of the lumber yard would be collected on a regular basis and disposed of in a 40-cubic yard recycle bin. The wood waste would be disposed of at a nearby recycling facility, which would be subject to state and federal regulations pertaining to solid waste disposal. As such, operation of the lumber yard would not generate treated wood waste and impacts from disposal of wood waste would be less than significant with adherence to existing regulations.

Finally, new development projects in the City of Perris are required to prepare a WQMP that describes the measures intended to eliminate, or reduce to the maximum extent practicable, pollutant discharges to the stormwater conveyance system primarily through the application and use of on-site design, source control, and treatment control BMPs after the construction phase (post-construction). The proposed project would include post-construction BMPs to address increases in impervious surfaces, methods to decrease incremental increases in off-site stormwater flows, and methods for decreasing pollutant loading in off-site discharges. The proposed project would also consist of approximately 46,641 square feet of landscaped areas along the boundaries of the site and planters within the parking areas, comprising approximately 19.4% of the overall site total. These landscaped areas would allow for stormwater to permeate into the groundwater system and serve as bio swales for treatment. The proposed storm drainage system and BMPs are required to be designed to the satisfaction of the City Engineer and in conformance with all applicable permits and regulations. Preparation of the SWPPP and WQMP would be required prior to issuance of grading permits. The project applicant/developer would be required to provide all necessary on-site stormwater infrastructure. Implementation of the requirements of the SWPPP and WQMP would reduce pollutants in stormwater and urban runoff from construction and operation of the proposed project. Therefore, potential impacts would be less than significant and no mitigation beyond compliance with existing regulations is required.

b) Less Than Significant Impact. If the project removes an existing groundwater recharge area or substantially reduces runoff that results in groundwater recharge such that existing wells would no longer be able to operate, a potentially significant impact could occur. In general, groundwater does not occur in the area within 100 to 200 feet of the ground surface. Project-related grading would only go a few feet below the surface, and would not reach the depth of the groundwater table. No disturbance of groundwater is anticipated. The proposed building footprint and pavement area would increase impervious surface coverage on the site, thereby reducing the total amount of infiltration onsite. However, infiltration of irrigation water through soil and water from runoff through soft-bottom channels would ensure continued groundwater recharge in Perris as impervious surfaces increase. The project site is not utilized for groundwater recharge and would include landscaped areas that would allow for infiltration. Because the site is not managed for groundwater supplies and would provide landscaped areas for continued infiltration, the potential change in impervious surfaces would not have a significant effect on the groundwater table level. In addition, operation of the commercial contractor's yard would not require use of excessive amounts of water such that depletion of groundwater supplies would occur. Based on the CalEEMod assumptions, the proposed project's total estimated water demand would be approximately 5,658,707 gallons per year, which is approximately 15,503 gallons per day. Potential impacts related to development of the proposed project with respect to groundwater recharge would be less than significant.

c.i) Less Than Significant Impact. The proposed project is small in scale and would not lead to a substantial alteration of existing drainage patterns. On site drainage flows would drain into existing drainage facilities within Sherman Road. Drainage facilities on-site would be constructed and regularly maintained in accordance with Peris Municipal Code Chapter 14.22 (Stormwater/Urban Runoff Management and Discharge Control). Adherence to the Perris Municipal Code requirements during construction of the project and proper maintenance of drainage facilities during operation would decrease the likelihood of on- or off-site erosion or siltation. Therefore, the potential impact would be less than significant.

c.ii) Less Than Significant Impact. No streams traverse the project site; thus, the project would not result in the alteration of any stream course. As detailed in response 4.10.c.iv below, the project site is not located in an area that is susceptible to flooding. Development of the proposed project would increase the net area of impermeable surfaces on the site; therefore, the rate and/or amount of surface runoff would increase. During construction, the project applicant/developer would be required to comply with drainage and runoff guidelines pursuant to Perris Municipal Code Chapter 14.22. Stormwater associated with operation of the proposed development would be collected on site and conveyed to the existing storm drainage system in Sherman Road. Permits to connect to the existing storm drainage system would be obtained prior to construction. All drainage plans are subject to City review and approval. Therefore, the project would not result in on- or off-site fooding. Potential impacts related to the proposed project would be less than significant.

c.iii) Less Than Significant Impact. Development of the proposed project would increase the net area of impermeable surfaces on the site; therefore, increased discharges to the City's existing storm drain system would likely occur. The proposed project would include on-site drainage improvements as part of the building construction and throughout the parking area. Stormwater would be captured in the proposed building's external drainage and gutter system and the impervious areas of the site (non-landscaped areas) and would be directed to two storm drain inlets on the site – one located in the parking lot area and one located in the lumber yard area. The water would then be directed into the existing storm drain system in Sherman Road. In addition, the various landscaped areas would act as on-site bio swales for treatment and infiltration into the ground. Permits to connect to the existing storm drainage system would be obtained prior to construction. All drainage plans are subject to City review and approval. Therefore, the increase in discharges would not impact local storm drain capacity. Finally,

the proposed lumber yard portion of the project would not use hazardous materials. Therefore, the project would not result in substantial pollutant loading such that treatment control BMPs would be required to protect downstream water quality. Potential impacts would be less than significant.

c.iv) No Impact. According to flood maps prepared by the Federal Emergency Management Agency (FEMA), the project site is not located within a floodplain.[16] According to FEMA, the project site is located in Zone X, which is an area determined to be outside the 0.2% annual chance floodplain. Additionally, the City of Perris General Plan Safety Element does not identify the project site is being located in a flood hazard zone.[17] Therefore, the project would not impede or redirect flood flows. No impact would occur.

d) Less Than Significant Impact. The City of Perris is not exposed to tsunami hazards due to its inland location. However, according to the City of Perris General Plan Safety Element, the project site is located in the dam inundation zone of for Perris Dam.[18] The California Department of Water Resources has identified a seismic safety risk in the Perris Dam and recently upgraded the dam to be able to withstand the effects of the strongest earthquake likely to occur in the area.[19] Therefore, the structures being built as a part of this project would not be subject to potential damage under a dam failure scenario. Impacts would be less than significant.

e) Less than Significant Impact. The Santa Ana Regional Water Quality Control Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs to protect all waters in the region. Development allowed by the project would be required to adhere to requirements of the water quality control plan, including all existing regulation and permitting requirements. This would include the incorporation of BMPs to protect water quality during construction and operational periods.

Development of the project would be subject to all existing water quality regulations and programs, including all applicable construction permits. The City requires all projects to comply with the discharge permit requirements of the Regional Water Quality Control Board (Order No. R8-2010-0033). Implementation of these policies, in conjunction with compliance with existing regulatory programs, would ensure that potential water quality impacts related to the proposed project would be less than significant.

4.12 – Land Use and Planning

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
b) Cause a 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?	☐	☐	☑	☐

a) No Impact. The project site is located in the southeastern part of the City in an area that is primarily made up of industrial uses, commercial uses, residential uses, and vacant land designated for industrial and business park uses. The project site is zoned LI – Light Industrial. This zone allows uses including limited assembly and packaging operations, self-storage warehouse, distribution centers, and business-to-business retail operations. The project does not involve construction of any roadway, flood control channel, or other structure that would physically divide any portion of the community. The project use would be consistent with the general uses in the vicinity and therefore would not divide an established community. Therefore, no impact would occur.

b) Less Than Significant Impact. As stated above, the project site is located in an area characterized by industrial uses, commercial uses, residential uses, and vacant land. The proposed project would be consistent with the City's General Plan and Municipal Code. As detailed below, implementation of the proposed project would not conflict with applicable plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect.

City of Perris General Plan

Table 9 evaluates the consistency of the proposed project with the applicable policies of the Comprehensive General Plan 2030 that have been adopted for the purpose of avoiding or mitigating an environmental impact. Table 9 demonstrates that the proposed project would be consistent with the City's General Plan policies that are applicable to the project with implementation of the mitigation measures recommended in this Initial Study.

Table 9
City of Perris General Plan Policy Consistency Analysis

Applicable Element/Policy	Project Consistency Analysis
Land Use Element	
Policy II.A: Require new development to pay its full, fair-share of infrastructure costs.	**Consistent.** The proposed project would include or the project applicant/developer would provide fair-share contributions toward necessary infrastructure, pay established development impact fees (DIF), and pay regional impact fees (Traffic Uniform Mitigation Fee or TUMF) for traffic, which are all standard conditions of approval in the City.
Policy II.B: Require new development to include school facilities or pay school impact fees, where appropriate.	**Consistent.** Although the proposed project would not directly increase population affecting school facilities, the project applicant/developer would pay applicable school impact fees to the serving school districts.
Policy III.A: Accommodate diversity in the local economy.	**Consistent.** The project would provide dozens of new short-term jobs during construction and new long-term employment for industrial/warehouse workers. Long-term jobs may be part-time or full-time depending on duties and need and would provide employment for various income levels.
Policy V.A: Restrict development inareas at risk of damage due to disasters.	**Consistent.** The analysis in this Initial Study concludes that the project site is not located within an area subject to significant hazards or hazardous conditions (e.g., flooding, wildfires, earthquakes).
Circulation Element	
Policy I.B: Support development of a variety of transportation options for major employment and activity centers including direct access to commuter facilities, primary arterial highways, bikeways, park-and-ride facilities, and pedestrian facilities.	**Consistent.** Although the project would not be a major employment or activity center, the project would extend existing sidewalks south, install bicycle racks, and would be located in closed proximity to bus service on Highway 74 to the north of the site.
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.	**Consistent.** The project does not include or require any changes to the existing transportation network other than the extension of sidewalks along the project frontage. Further, installation of bike racks at the project site would support development of alternative travel modes.
Policy III.A: Implement a transportation system that accommodates and is integrated with new and existing development and is consistent with financing capabilities. (Implementation Measure III.A.4) Require developers to be primarily responsible for the improvement of streets and highways to developing commercial, industrial, and residential areas. These may include road construction or widening, installation of turning lanes and traffic signals, and the improvement of any drainage facility or other auxiliary facility necessary for the safe and efficient movement of traffic or the protection of road facilities.	**Consistent.** The project does not include or require any changes to the existing transportation system other than the extension of sidewalks along the project frontage. The project applicant/developer would pay established DIF fees and pay regional TUMF impact fees for traffic improvements within the City.

Policy V.A: Provide for safe movement of goods along the street and highway system.	**Consistent.** The project would include a light industrial use, which is a planned use for this area and employees and customers would be travelers along Sherman Road between Highway 74 to the north and Ethanac Road to the south.
Policy VII.A: Provide for safe movement of goods along the street and highway system.	**Consistent.** The project does not include or require any changes to the existing transportation network other than the extension of sidewalks along the project frontage. Further, installation of bike racks at the project site would support development of alternative travel modes.
Policy VIII.A Encourage the use of Transportation Demand Management (TDM)/Transportation Control Measure (TCM) strategies and programs that provide attractive, competitive alternatives to the single-occupant vehicle.	**Consistent.** The project includes extension of sidewalks along the project frontage. Further, installation of bike racks at the project site would support development of alternative travel modes.
Conservation Element	
Policy II.A: Comply with state and federal regulations to ensure protection and preservation of significant biological resources. (Implementation Measure II.A.2) For public and private projects located in areas with potential for moderate or high plant and wildlife sensitivity, require biological surveys as part of the development review process.	**Consistent.** A General Biological Resources Assessment was conducted on the project site. Section 4, *Biological Resources*, demonstrates that the project would not have any significant impacts on biological resources with implementation of recommended mitigation measures.
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.	**Consistent.** A General Biological Resources Assessment was conducted on the project site. Section 4, *Biological Resources*, demonstrates that the project would not have significant impacts on biological resources addressed in the MSHCP. The project would pay the established MSHCP and Stephens' kangaroo rat mitigation fees and implement two mitigation measures consistent with the MSHCP.
Policy IV.A: Comply with state and federal regulations and ensure preservation of the significant historical, archaeological and paleontological resources.	**Consistent.** Section 5, *Cultural Resources*, and Section 18, Tribal Cultural Resources demonstrate that the project would not have significant impacts on archaeological resources with implementation of recommended mitigation measures. In addition, Section 7, *Geology and Soils*, in this Initial Study concluded the project would not have significant impacts on paleontological resources with the implementation of recommended mitigation.
Policy V.A: Coordinate land-planning efforts with local water purveyors.	**Consistent.** Section 19, *Utilities and Service Systems*, demonstrates that the project has and is being coordinated with the Eastern Municipal Water District (EMWD).
Policy VI.A: Comply with requirements of the National Pollutant Discharge Elimination System (NPDES).	**Consistent.** Section 10, *Hydrology and Water Quality*, demonstrates the project would comply with the most recently adopted Riverside County MS4 NPDES Permit.
Policy VII.A: Preserve significant hillsides and rock outcroppings in the planning areas.	**Consistent.** The project site is void of any hillsides or rock outcroppings.
Policy X.B Encourage the use of trees within project design to lessen energy needs, reduce the urban	**Consistent.** The project includes planting of 15 ornamental trees within the landscaped areas and

heat island effect, and improve air quality throughout the region.	around the proposed building.
Policy X.C Encourage strategic shape and placement of new structures within new commercial and industrial projects.	**Consistent.** The proposed building would located in the south-central portion of the site and views of the building from Sherman Road would be partially screened by the existing buildings located at 3042 and 3060 Sherman Road. The building design includes articulations and a color scheme intended to minimize the scale of the building and provide aesthetic conformity with surround uses and potential future uses in the area. The project also includes an 8-foot-tall masonry wall along the northern, eastern, and western boundaries, and a 14-foot-tall masonry wall along the southern boundary line which is shared with existing residential uses.
Noise Element	
Policy I.A: The State of California Noise/Land Use Compatibility Criteria shall be used in determining land use compatibility for new development. (Implementation Measure I.A.1) All new development proposals will be evaluated with respect to the State Noise/Land Use Compatibility Criteria. Placement of noise sensitive uses will be discouraged within any area exposed to exterior noise levels that fall into the "Normally Unacceptable" range and prohibited within areas exposed to "Clearly Unacceptable" noise ranges.	**Consistent.** Noise levels at the project site have been evaluated in the Noise and Vibration Analysis Report. The proposed project is not a noise sensitive use that would be subject to unacceptable noise levels.
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.	**Consistent.** There are sensitive receptors less than 160 feet from the project site; however, the proposed project is not considered a large scale industrial facility. Additionally, the proposed project's operations would not result in noise levels that exceed city standards or otherwise result in a substantial permanent increase in noise levels at sensitive noise receptors.
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.	**Consistent.** The project would include extension of existing sidewalks from the north along the project frontage. The project would have direct access to Sherman Road and is in close proximity to both Highway 74 and Ethanac Road. These roadways provide adequate evacuation and emergency vehicle access to the project area and this portion of the City.
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.	**Consistent.** The project would provide improvements as described in Section 4.19, *Utilities*, in this Initial Study.
Policy S-2.3 Primary access routes shall be completed prior to the first certificate of occupancy in developments located in outlying areas of the City.	**Consistent:** The Project Site is located within the urbanized area of the City and would have direct access to Sherman Road.

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.	**Consistent.** Access to the site would be provided via a 40-foot-wide driveway at the existing entrance at the northwest corner of the site along Sherman Road.
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.	**Consistent.** Section 10, *Hydrology and Water Quality*, demonstrates that the project would not be subject to flooding (i.e., located in FEMA Flood Zone X).
Policy S-4.3: Require new development projects and major remodels to control stormwater run-off on site.	**Consistent.** Section 10, *Hydrology and Water Quality*, demonstrates that the proposed drainage system would accommodate onsite runoff so that there would be no increase in downstream offsite runoff.
Policy S-4.4: Require flood mitigation plans for all proposed projects in the 100-year floodplain (Flood Zone A and Flood Zone AE).	**Consistent.** Section 10, *Hydrology and Water Quality*, demonstrates that the project would not be subject to flooding (i.e., located in FEMA Flood Zone X).
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.	**Consistent.** Safety Element Figure S-4 indicates that the project site is within the inundation zone of the Perris Dam. However, the California Department of Water Resources has identified a seismic safety risk in the Perris Dam and recently upgraded the dam to be able to withstand the effects of the strongest earthquake likely to occur in the area.
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.	**Consistent.** Safety Element Figure S-5 indicates that the project site is in a Local Responsibility Area and not within a "Very High Fire Hazard Severity Zone".
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.	**Consistent.** The project would have direct access to Sherman Road and is located in close proximity to Highway 74 and Ethanac Road. These roadways provide adequate evacuation and emergency vehicle access to the project area and this portion of the City.
Policy S-5.10: Ensure that existing and new developments have adequate water supplies and conveyance capacity to meet daily demands and firefighting requirements.	**Consistent.** Section 4.19, *Utilities,* indicates that the project would have sufficient water supplies and adequate infrastructure for water conveyance consistent with the General Plan infrastructure plan. The EMWD has also provided the project with a water will-serve letter.
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.	**Consistent.** The proposed project would be consistent in terms of land use with the March ARB/IPA ALUCP and AICUZ limitations placed on the site due to the presence of March ARB/IPA to the north and northwest (see Section 9, *Hazards and Hazardous Materials*). The project would be consistent with the building limitations identified by ALUC for Safety Zone D within which the project site is located.
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.	**Consistent.** A legislative approval and ALUC review is not required for the proposed project because the proposed project is consistent with the existing City of Perris land use and zoning designations for the project site.
Policy S-6.3: Effectively coordinate with March Air Reserve Base and Perris Valley Airport on development within its influence areas	**Consistent.** A legislative approval and ALUC review is not required for the proposed project because the proposed project is consistent with the existing City of Perris land use and zoning designations for the project site.

Policy S-7.1: Require all development to provide adequate protection from damage associated with seismic incidents.	**Consistent.** Section 4.7, *Geology and Soils*, indicates that the project Geotechnical Engineering Investigation concluded that the project would have less than significant impacts related to faulting and seismic shaking.
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.	**Consistent.** The Geotechnical Engineering Investigation concluded that the project would have less than significant impacts related to seismic and geologic hazards.
Policy S-7.4 Ensure slope stability issues are effectively addressed in both developed and developing areas within the City.	**Consistent.** The project site is relatively flat and is not subject to slope stability issues.
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.	**Consistent.** Operation of the project would involve the use of cleaning solutions for daily operation and paints for routine maintenance and re-coating of structures. Use of common household hazardous materials and their disposal does not present a substantial health risk to the community. Project operation would not include treatment of wood or application of treatment chemicals to wood. Operation of the lumber yard would not include use of lumber treated with formaldehyde, chromated copper arsenate, creosote, copper azote, pentachlorophenol, or borate and, therefore, would not generate treated wood waste. The project would be required to comply with all existing federal, state, and local regulations for the storage, disposal, and transport of petroleum products.
Healthy Community Element	
Policy HC 1.3: Improve safety and the perception of safety by requiring adequate lighting, street visibility, and defensible space.	**Consistent.** The project would comply with the City's requirements regarding adequate lighting, street visibility, and defensible space through compliance with the City's development review process.
Policy HC 2.3: Promote increased physical activity, reduced driving and increased walking, cycling and public transit by: • Requiring where appropriate the development of compact development patterns that are pedestrian and bicycle friendly • Increasing opportunities for active transportation (walking and biking) and transit use • Encouraging the development of neighborhood grocery stores that provide fresh produce	**Consistent.** The project would have public transit proximate to the site along Highway 74 to the north, the project would extend existing sidewalks along the project frontage, and the project would provide bicycle racks.
Policy HC 2.4: Promote development patterns and policies that: • Reduce commute times • Encourage the improvement of vacant properties and the reinvestment in neighborhoods • Provide public space for people to congregate and interact socially • Foster safe and attractive environments • Encourage civic participation	**Consistent.** The project would develop a vacant site, create new jobs for local residents, and has good local and regional access for commuters. Because the project is not commercial or mixed use and is within the March ARB/IPA Zone D, it would not provide public spaces for assembly of large groups.

Policy HC 2.6: Encourage land use and urban design to promote physical activity, provide access to nutritious foods, and reduce air pollution	**Consistent.** The project is industrial in nature but the project would extend sidewalks along the project frontage and would provide bicycle racks. The project would also not exceed South Coast AQMD significance thresholds related to local or regional air pollutants.
Policy HC 3.1: Coordinate with transportation service providers and transportation planning entities to improve access to multi-modal transportation options throughout Perris including public transit	**Consistent.** The project site is proximate to existing transit services and is coordinating with RTA regarding new transit improvements if needed.
Policy HC 3.5: Promote job growth within Perris to reduce the substantial out-of-Perris job commutes that exist today	**Consistent.** The project would provide new jobs in the light industrial sector which would help reduce out-of-Perris commute times for local workers.
Policy HC 6.1: Support regional efforts to improve air quality through energy efficient technology, use of alternative fuels, and land use and transportation planning	**Consistent.** The project would not exceed South Coast AQMD significance thresholds for local or regional air pollutant emissions and would comply with the latest energy conservation requirements of the CalGreen Code.
Policy HC 6.2: Support regional water quality efforts that balance water conservation, use of recycled water, and best practices in watershed management	**Consistent.** According to Section 4.9, *Hydrology and Water Quality*, the project would protect water quality, both onsite and downstream, by implementing appropriate BMPs.
Policy HC 6.3: Promote measures that will be effective in reducing emissions during construction activities. • Perris will ensure that construction activities follow existing South Coast Air Quality Management District (SCAQMD) rules and regulations. • All construction equipment for public and private projects will also comply with California Air Resources Board'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.	**Consistent.** As discussed in Section 3, *Air Quality*, project would comply with the existing South Coast AQMD rules and regulations aimed at reducing emissions of pollutants. The project would not exceed any South Coast AQMD daily regional or localized emissions significance thresholds.
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	**Consistent.** The project site is surrounded by light industrial and commercial uses so the project would be consistent with existing and proposed land uses in the area.

mitigated using: noise barriers, building insulation, sound buffers, traffic diversion.	
Goal 3.1 Policy: Support identification, clean-up and remediation of local toxic sites through the development review process	**Consistent.** The Phase I ESA concluded that the project site is not contaminated and is not designated as a hazmat site in governmental databases.
Goal 3.1 Policy: As part of the development review process, require conditions that promote Good Neighbor Policies for Industrial Development for industrial buildings larger than 100,000 square feet. The conditions shall be aimed at protecting nearby homes, churches, parks, day-care centers, schools, and nursing homes from air pollution, noise lighting, and traffic associated with large warehouses, making them a "good neighbor."	**Consistent.** The project does not include any buildings that are larger than 100,000 square feet
Source: 2030 General Plan, various Elements	

March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

The project site is within the area subject to the March ARB/IPA ALUCP, which is monitored and maintained by the Riverside County ALUC. The project site is designated for light industrial uses by the City of Perris General Plan. The project site falls within March ARB/IPA ALUCP Compatibility Zone D ("Flight Corridor Buffer"). Land uses in this zone are considered sensitive for aircraft-related safety relative to density (persons per acre), building height, and lighting. As required by Perris Municipal Code Chapter 19.51 March ARB/IP Airport Overlay Zone (AOZ), development within the Airport Overlay Zone must be compatible with the March ARB/IPA ALUCP. ALUC requires a review and consistency determination when any project is seeking legislative action. The proposed project is consistent with the existing City of Perris land use and zoning designations for the project site. As such, a legislative approval and ALUC review is not required for the proposed project. The proposed project would be consistent with the General Plan and Light Industrial zoning designation design standards and would not result in a safety hazard or excessive noise for people working in the project area. Therefore, the project would have less than significant impacts related to the March ARB/IPA ALUCP.

Regional Plans

The 5.39-acre project site is designated for light industrial uses which were already analyzed in the General Plan and the General Plan EIR. The project site is zoned LI - Light Industrial with a floor to area ratio (FAR) of 0.75 per Table LU-1 of the City of Perris General Plan Land Use Element. Under the current land use and zoning designation, the buildout potential for the current light industrial zoning at the site could be developed with up to 176,091 square feet of building space (Site Area x FAR). Table 1 of the project Transportation Screening Assessment shows the potential project buildout trips are based on Institute of Transportation Engineers (ITE) trip generation rates for Land Use Code 180 (Specialty Trade Contractor). The Transportation Screening Assessment concludes the proposed project would generate approximately 246 daily trips, of which 42 trips would occur during the AM peak hour and 48 trips would occur during the PM peak hour. As such, it was determined that the proposed project would have less than significant transportation impacts. Therefore, the overall impacts of the proposed project would be generally consistent with the assumptions used to develop Connect SoCal 2024 developed by SCAG for this region of the state. In addition, the size of the project does not exceed the thresholds established by CEQA for regionally significant projects. Therefore, the proposed project does not need to be evaluated against the specific goals or policies of Connect SoCal 2024. In this regard, the proposed project would not have substantially different impacts relative to regional land use and environmental plans (like Connect SoCal 2020). As outlined above, the proposed project would not be expected to substantially increase development intensity or change the population or housing

projections planned for under the City of Perris General Plan (i.e., no new residential uses proposed). Therefore, the project would not conflict in a substantial or significant way or exceed the overall assumptions used to develop Connect SoCal 2024 as they relate to the City of Perris.

Summary

The preceding analysis demonstrates the project would not conflict with local or regional plans and policies that have been adopted for the purpose of avoiding or mitigating an environmental impact. Impacts would be less than significant with the implementation of the mitigation measures recommended in this Initial Study.

4.13 – Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑

a) No Impact. In order to protect the availability of mineral resources of value, the California Department of Conservation identifies sites to which continuing access is important to satisfying mineral production needs of the region and the State. The relative importance of potential mineral resource sites is indicated by inclusion in one of four Mineral Resource Zones (MRZ):

MRZ 1: No mineral resources;
MRZ 2: Significant resource area (quality and quantity known);
MRZ 3: Significant resource area (quality and quantity unknown);
MRZ 4: No information (applies primarily to high-value ores).

The California Department of Conservation is primarily interested in preservation of access to significant resources areas included in MRZ 2. Lands within the City of Perris and its Sphere of Influence are designated MRZ 3 and MRZ 4 which are not defined as significant resource areas.[20] Accordingly, no impact to availability of valuable mineral resources will occur.

b) No Impact. No sites in the City of Perris or its Sphere of Influence have been designated as locally-important mineral resource recovery sites in the City of Perris General Plan or any other local plan. No impact would occur.

4.14 – Noise

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐

A *Noise and Vibration Analysis Report* was prepared for the proposed project by MIG, Inc., dated October 8, 2026 (see Appendix I). The information in this section is largely taken from this technical study.

a) Less Than Significant with Mitigation Incorporated.

Existing Noise Environment

The proposed project is located in the southeast corner of the City of Perris. The City of Perris General Plan identifies vehicle traffic, air traffic, rail traffic, the Perris Auto Speedway, March Inland Port, and Perris Valley Airport and Skydiving Center as the main sources of noise in the City. It is noted that the project site is bordered by the City of Menifee to the north, east, and west. From Wednesday, September 11, 2024, to Thursday, September 12, 2024, MIG, Inc. conducted noise monitoring to evaluate existing ambient noise conditions in the vicinity of the project site. One long-term (LT) measurement and one short-term (ST) measurement were conducted to determine typical ambient noise levels in the vicinity of the project area, provide direct observations of existing noise sources at and in the vicinity of the project area, and evaluate project noise levels at nearby sensitive receptors. The two monitoring locations are described below:

- Location LT-1 was at the northwest portion of the project site, approximately 655 feet west of the centerline of Sherman Road and approximately 670 feet east of the centerline of Trumble Road.
- Location ST-1 was on the eastern side of the project site, approximately 15 feet west of the centerline of Sherman Road (near the edge of the pavement).

Table 10 summarizes the results of the noise monitoring. Refer to Appendix I for detailed noise monitoring data.

Table 10
Existing Ambient Noise Levels (dBA)

Location	Duration	Measured Noise Level (dBA)			
		L_{eq}	L_{min}	L_{max}	CNEL
LT-1	24 hours	50.6	37.8	69.8	57.3
ST-1	1 hour	61.0	40.2	81.4	--
Source: MIG, 2026 (see Appendix I)					

Noise Sensitive Receptors

Noise sensitive land uses and receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. The City of Perris General Plan Noise Element defines sensitive noise receptors as land uses that are adversely affected by various noise sources; such land uses are defined in Section 16.22.020 of the Perris Municipal Code and includes residences, schools, libraries, hospitals, churches, offices, hotels, motels, and outdoor recreational areas as sensitive noise receptors. Based on the these definitions, the noise sensitive receptors within 1,000 feet of the proposed project site include:

- The residential property that borders the project site's southeastern corner at 3042 Sherman Road, in the City of Perris.
- Residential properties across Sherman Road, approximately 75 to 225 feet east of the project site, in the City of Menifee. The closest of these properties do not have a direct line of sight to the project; only residences located 225 feet east of the project area have a direct line of sight into the project area.
- Residential properties that border and are adjacent to the project site to the west, addressed as 25710 to 25870 Trumbull Road, in the City of Menifee. These properties include residential and other ancillary buildings (e.g., sheds, garages, etc.). The closest noise sensitive use area associated with these properties is 125 feet from the project's site's western boundary.
- Single family residential uses across SR-74, approximately 770 feet northeast of the project site, in the City of Menifee.
- Single family residential uses south of Ethanac Road, approximately 990 feet southeast of the project site, in the City of Menifee.

Analysis of Impacts

The analysis of impacts below evaluates the proposed project's construction noise levels against the standards contained in City of Perris Municipal Code Section 7.34.060. The Perris Municipal Code limits construction activities to the hours of 7 AM to 7 PM and is more restrictive than the Menifee Municipal

Code.[iv] In addition, the Perris Municipal Code also sets a numeric limit (80 dBA L_{max}) on the noise level from construction activity in residential zones while the Menifee Municipal Code does not have a numeric noise threshold for construction. With regards to operational noise, the analysis below evaluates the proposed project's operational noise levels against the standards in the Perris Municipal Code and General Plan because the project would involve the operation of noise sources in Perris, not Menifee. It is noted that the Perris Municipal Code generally establishes maximum noise standards while the Menifee Municipal Code applies energy-averaged noise levels over a period of time, and that maximum instantaneous standards are generally more restrictive than energy-averaged standards. In addition, both the Perris General Plan and the Menifee General Plan establish 60 CNEL as the normally acceptable limit for single family residential land uses. However, the City of Perris establishes 65 CNEL as the conditionally acceptable limit for single family residential uses while the City of Menifee establishes 70 CNEL as the conditionally acceptable limit.

Temporary Construction Noise Impacts

Construction activities are assumed to begin as early as 2027 and last approximately 14 months. The proposed project's construction schedule and anticipated equipment usage is listed in Table 11 which summarizes the proposed project's construction phasing and the typical pieces of heavy-duty, off-road construction equipment that would be required during each phase.

Table 11
Construction Activity, Duration, and Typical Equipment

Construction Activity	Duration (Days)(A)	Typical Equipment Used(B)
Site Preparation	10	Dozer, Tractor/Loader/Backhoe
Grading	20	Grader, Dozer, Excavator, Tractor/Loader/Backhoe
Building Construction	230	Crane, Forklift, Tractor/Loader/Backhoe, Generator, Welder
Paving	20	Paver, Roller, Paving Equipment
Architectural Coating	20	Air Compressor

Source: MIG, Inc. 2026
(A) Days refers to total active workdays in the construction phase, not calendar days.
(B) The typical equipment list does not reflect all equipment that would be used during the construction phase. Not all equipment would operate eight hours per day each workday.

In general, construction activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as (but not limited to) dozers, backhoes, tractors, loaders, graders, excavators, scrapers, welders, rollers, cranes, material lifts, generators, pavers, paving equipment, and air compressors. These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas. Some heavy equipment would consist of mobile equipment such as a loader and excavator that would move around work areas; other equipment would consist of stationary equipment (e.g., cranes or material hoists/lifts) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems, and components (e.g., fans,

[iv] Menifee Municipal Code Title 8, Buildings and Construction, Section 8.01.010 limits construction that occurs within ¼ mile of an occupied residence to 6:30 AM through 7:00 PM on Mondays through Saturdays. Construction is prohibited on Sundays and nationally recognized holidays unless approval is obtained from the City Building Official or City Engineer.

gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.

- Vehicle trips, including worker, vendor, and haul truck trips. These trips are likely to primarily occur on Ethanac Road and Sherman Road. Worker trips usually consist of passenger cars and light- to medium-duty trucks. Vendor and haul truck trips usually consist of medium-heavy and heavy-heavy duty trucks.

Table 12 presents the maximum equipment noise levels associated with the typical types of construction equipment that are likely to be used during project construction activities.

Table 12
Maximum Project Construction Equipment Noise Levels

Equipment	Predicted Equipment Noise Levels (L_{max})(A)						
	25 Feet	50 Feet	75 Feet	125 Feet	225 Feet	300 Feet	500 Feet
Backhoe	86	80	76	72	67	64	60
Bulldozer	91	85	81	77	72	69	65
Compact roller	86	80	76	72	67	64	60
Compressor	86	80	76	72	67	64	60
Concrete Mixer	91	85	81	77	72	69	65
Crane	91	85	81	77	72	69	65
Delivery Truck	90	84	80	76	71	68	64
Excavator	91	85	81	77	72	69	65
Generator	88	82	78	74	69	66	62
Grader	91	85	81	77	72	69	65
Man Lift	91	85	81	77	72	69	65
Paver	91	85	81	77	72	69	65
Pneumatic tools	91	85	81	77	72	69	65
Pumps	83	77	73	69	64	61	57
Scraper	91	85	81	77	72	69	65
Tractor	90	84	80	76	71	68	64
Vacuum Truck	91	85	81	77	72	69	65
Welder	80	74	70	66	61	58	54
Backhoe	86	80	76	72	67	64	60
Bulldozer	91	85	81	77	72	69	65
Compact roller	86	80	76	72	67	64	60

Sources: MIG, 2026 (see Appendix I), Caltrans, 2013, and FHWA, 2010.
(A) L_{max} noise levels based on manufacturer's specifications at 50 feet.

As shown in Table 12, the maximum construction equipment noise levels could be above the City's construction noise standard of 80 dBA L_{max} at residential properties with uninterrupted line of sight to within 75 feet of the project area, which is limited to the residential property that borders the project to the southeast. For all other residential properties in the vicinity of the project site, maximum construction

noise levels would be less than 80 dBA L_{max}.[v] The magnitude of the project's temporary and periodic increase in ambient noise levels would depend on a number of project-specific factors that are not known at this time, including: the specific type of equipment being used; the distance between the area where equipment is being operated and the location of the receptor where noise levels would be perceived; the time of day construction activities are occurring; the presence or absence of any walls, buildings, or other barriers that may absorb or reflect sound waves; the total duration of the construction activities; and the existing ambient noise levels near construction areas. While the Perris Municipal Code limits construction activities to specific time periods, project construction activities could, as described above, exceed the City's 80 dBA L_{max} standard at the residential property that borders the site to the southeast. This is considered a potentially significant impact.

To reduce the potential for the project construction activities to result in a substantial temporary increase in ambient noise levels in the vicinity of the project site that could exceed City standards, Mitigation Measure NOI-1 has been incorporated. The implementation of Mitigation Measure NOI-1 would require the project proponent to provide advanced notification of construction activities, restrict work hours to daytime periods when humans are less sensitive to elevated noise levels, implement equipment noise control measures, and install temporary noise barriers. The use of equipment in good working order with standard noise suppression devices and the shielding of stationary noise generating equipment per Mitigation Measure NOI-1, Section C, is estimated to result in a 2 dBA to 5 dBA reduction in modeled equipment noise levels.[vi] In addition, the installation of an 8-foot-tall temporary noise barrier per Mitigation Measure NOI-1, Section D, is estimated to result in a minimum 11 dBA reduction in estimated equipment noise levels at the residential property that borders the site to the southeast. Mitigation Measure NOI-1 would, therefore, lower potential construction noise levels by 13 to 18 dBA, from approximately 91 dBA L_{max} to between 73 dBA L_{max} and 78 dBA L_{max}. This mitigated construction noise level would be below the Perris Municipal Code construction noise standard for residential land uses (80 dBA L_{max}). In addition, by providing advanced notice of loud construction activities and implementing equipment control measures and temporary noise barriers, the potential for noise levels to surprise, annoy, or interfere with sensitive residential receptors and land uses would be substantially reduced. Thus, the implementation of Mitigation Measure NOI-1 would render the project's potential temporary construction-related noise increase impact to a less than significant level.

Permanent Operational Noise Impacts

The project is expected to be operational in 2028. Once operational, the project would operate as a commercial land use and is expected to generate approximately 340 vehicle trips per day. The proposed project would operate as a contractor's yard that would generate noise from on- and off-site vehicle travel, on-site heating, ventilation, and air conditioning equipment (HVAC), saws, and shop/maintenance activities. The proposed project's operational noise levels were estimated using Caltrans' standard theoretical equations for predicting environmental noise levels. Reference and potential hourly average noise levels associated with the proposed project's noise sources are summarized in Table 13. All reference noise levels are presented at a distance of three (3) feet from the source.

[v] In general, maximum equipment noise levels do not occur in the same place at the same time and, therefore, maximum noise levels from two or more pieces of equipment are not combined for noise estimation purposes.

[vi] The FHWA's reference construction equipment noise levels are based, in part, on measured data from construction projects occurring in the 1990s with equipment manufactured as early as the 1970's. Newer equipment would include enhanced shields, mounts, and noise suppression controls that lower equipment noise levels below reference data.

Table 13
Project Noise Source – Reference and Hourly Noise Levels

Noise Source	Reference dBA(A)	Duration(B)	Hourly L_{eq}(C)
On-site Automobile Trip			
Low speed travel (15 mph)/parking	*55*	*30*	*34.2*
Door closing	*80*	*2*	*47.4*
Engine start/rev	*90*	*10*	*64.4*
Total Combined Noise Level			*64.5*
On-Site Truck Trip			
Low speed travel (15 mph)	*96*	*30*	*75.2*
Maneuvering (with backup alarm)	*100*	*60*	*82.2*
Air brake release	*98*	*3*	*67.2*
Main engine idling	*86*	*300*	*75.2*
Door closing	*80*	*2*	*47.4*
Engine start/rev	*100*	*20*	*77.4*
Total Combined Noise Level			*84.7*
Forklift			
Operation	*70*	*1800*	*67.0*
Backup Alarm	*92*	*90*	*76.0*
Total Combined Noise Level			*76.5*
HVAC Unit			
Operation (5 Ton)	*80*	*3,600*	*80.0*
Saw			
Operation (low, not cutting)	*65*	*1200*	*60.2*
Operation (high, cutting)	*90*	*2400*	*88.2*
Total Combined Noise Level			*88.2*
Mechanics Shop			
Miscellaneous Operations	*70*	*3,600*	*70.0*

Source: Caltrans, 2013; Carrier, 2018, FHWA, 2018.
(A) Reference dBA is L_{max} and is based on a distance of 3 feet.
(B) Duration is used to estimate the percentage of time the noise is generated per Equation 2 (out of 3,600 seconds in an hour).
(C) Hourly L_{eq} estimated using Equation 3. Estimates do not include any attenuation provided by noise barriers or parapet walls.

Predicted Noise Levels at Adjacent Residential Properties

The proposed project's potential noise levels were estimated using the reference and calculated hourly L_{eq} noise levels identified in Table 13, adjusted for distance, operational nature, and the amount of vehicle trips, truck activity, forklift activity, saw operations, HVAC operations, and mechanics shop operations, that could occur at the same time. The individual and total combined noise levels resulting from the proposed project are discussed below. Refer to Appendix I for detailed information regarding the proposed project's noise level estimates. The proposed project's on-site noise sources would include:

- Automobile travel to parking spaces, automobile parking, and other miscellaneous automobile noise sources such as doors closing and engines starting, idling, etc. All vehicular access would occur along the driveway in the northeast corner of the project site and along drive aisles and parking areas in the eastern and central portions of the project site. On-site automobile travel is assumed to occur at low speeds (15 miles per hour or less).

- Delivery and concrete pump truck travel, maneuvering, and parking in the truck parking area in the northwest corner of the project site. On-site truck travel is assumed to occur at low speeds (10 miles per hour or less). Six delivery and six concrete pump trucks would leave the site in the morning and return in the afternoon/evening.
- Cargo handling equipment. The project would involve the use of three small forklifts or other hand-, electric, or natural gas-powered cargo/goods handling equipment to package and move materials.
- Rooftop-mounted HVAC unit. This system would condition approximately 14,207 square feet of mezzanine office space and is assumed to be rated at 5 tons or less. For the purposes of this analysis, HVAC units were assumed to be a Carrier Model 48HC or equivalent-type unit located in the center of the office roof area, fully concealed behind a parapet wall that would provide at least 5 dBA of noise shielding.
- Lumber saws. Two table saws located under the covered shade structures would be used to cut form boards, stakes, and the dimensional lumber.
- Mechanics shop. The mechanics shop would be used to maintain trucks and equipment as needed. Maintenance work would occur inside; however, roll up doors would be opened, meaning noise from the maintenance shop would only be controlled on three sides.
- Waste collection services. Waste collection would occur for no more than 15 minutes a day up to two times a week. This activity would not substantially change the project's overall noise level estimates and are not evaluated further.
- Landscaping activities: Landscaping activities would occur intermittently and would not substantially change the project's overall noise level estimates. Thus, landscaping activities are not evaluated further.

The proposed project would operate five days a week (Monday to Friday) from approximately 6 AM to 5 PM. The proposed project would have a limited potential impact adjacent land uses because the project design includes an 8-foot-tall masonry wall along its northern, eastern, and western boundary, and a 14-foot-tall masonry wall along the southern boundary line shared with residential uses. The project's potential operational noise levels were modeled at 5 different residential property line locations, as shown in Table 14 and Exhibit 6.

Table 14
Project Noise Levels at Modeled Residential Receptors

Noise Metric	Noise Level at Modeled Receptor (dBA)				
	R1	**R2**	**R3**	**R4**	**R5**
Maximum Project Noise Level (dBA L_{max})	46.6	51.6	48.3	57.8	55.5
City Code Standard (dBA L_{max})	Daytime: 80 dBA L_{max} / Nighttime: 60 dBA L_{max}				
City Code Standard Exceeded?	No	No	No	No	No
Existing CNEL[(B)]	67.3	67.3	57.3	57.3	57.3
Project CNEL	45.4	44.5	44.8	53.1	50.9
Existing Plus Project CNEL	67.3	67.3	57.5	58.7	58.2
Net Change	**0.0**	**0.0**	**0.2**	**1.4**	**0.9**
Potentially Significant Change?	**No**	**No**	**No**	**No**	**No**

Source: MIG, 2026 (see Appendix I)
(A) See Table 10.
(B) For residential receptors, the net change in noise is considered significant if there is a 5 dBA or more increase and the noise environment remains less than 60 CNEL, a 3 dBA or more increase and the noise environment remains below 65 CNEL, or a 1 dBA or more increase and the noise environment is above 65 CNEL.

Exhibit 6
Project Noise Levels at Modeled Residential Receptors



The results of the modeling shown in Table 14 indicate:

- Stationary Source Equipment: The proposed project's stationary HVAC unit, saws, and machine shop operations would produce a noise level up to approximately 40 dBA L_{max} at receptors to the west of the project site (R3, R4, and R5). This noise level would be well below the 80 dBA L_{max} daytime (7 AM to 10 PM) or 60 dBA L_{max} nighttime (10 PM to 7 AM) standards established by the city's Municipal Code.
- Total Site Operations: Site operations, including automobile trips, truck trips, forklift operations, and stationary noise sources would produce a worst-case noise level up to approximately 58

dBA L_{max} and 54 dBA Leq at R4; noise levels at all other receptors would be less than the modeled noise levels at R4.

- Exterior Noise Levels at Residential Receptors R1 to R5: Existing plus project noise levels at sensitive residential receptors would increase by less than 2 CNEL at all receptors and remain below the City's normally acceptable 60 CNEL land use compatibility guideline for residential land uses at R3, R4, and R5. R1 and R2 are already exposed to noise levels above 65 CNEL, which is within the city's normally unacceptable noise guideline; however, the proposed project would not change the existing ambient noise levels at R1 or R2. Therefore, the project's potential increase in noise levels at sensitive residential receptors would be less than significant.
- Interior Noise Levels at Residential Receptors R1 to R5: Existing plus project noise levels at residential receptors R3, R4, and R5 would not exceed approximately 59 CNEL. In general, standard construction techniques for residential buildings in California provide a minimum of 12 dBA of exterior to interior noise attenuation with windows open and between 20 dBA to 30 dBA of exterior to interior noise attenuation with windows closed.[vii] Thus, interior noise levels at R3, R4, and R5 would be less than 45 CNEL with windows closed. The existing noise levels at R1 and R2 are 67.3 CNEL; however, the proposed project would not change this noise level and, therefore, would have no impact on interior noise levels at R1 or R2. Therefore, the proposed project's potential increases in interior noise levels at sensitive residential receptors would be less than significant.

As described above, the proposed project's operations would not result in noise levels that exceed city standards or otherwise result in a substantial permanent increase in noise levels at sensitive noise receptors. Therefore, this impact would be less than significant.

Off-site Noise Level Increases

The proposed project would generate traffic that would be distributed onto the local roadway system and potentially increase noise levels along travel routes. Caltrans considers a doubling of total traffic volume to result in a three dBA increase in traffic-related noise levels. If the proposed project would not result in a doubling of traffic volumes on the local roadway system, it would not result in a substantial permanent increase in traffic-related noise levels. The *Transportation Screening Assessment* prepared for the project identifies the project would generate up to 246 total daily vehicle trips (see Appendix B). All of this project-related traffic would occur on Sherman Road, which has an estimated existing traffic volume of at least several thousand vehicles a day.[viii] The proposed project would not result in a doubling of traffic volumes on Sherman Road or any other roadway near the project site. Since the proposed project would result in substantially less than a doubling of daily traffic volumes on roadways used to access the site it would not result in a substantial, permanent increase in off-site traffic noise levels. Therefore, this impact would be less than significant.

[vii] The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 32 dB to 35 dB of attenuation between exterior and interior noise levels, provided there are no doors in the assembly and windows do not occupy more than 30% of the exterior wall space. Attenuation may be 2 – 3 dB less for traffic noise frequencies.

[viii] The Menifee General Plan Circulation Element identifies Sherman Road as a "major" road with a capacity to carry up to 34,100 vehicles per day.

b) Less Than Significant Impact. There are no federal noise and vibration regulations that directly apply to the proposed project; however, the Federal Transit Administration (FTA) has published guidance on predicting and assessing the noise and vibration impacts of proposed transit projects, including guidance for assessing noise and vibration during construction of such projects. The FTA's ground-borne vibration annoyance criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings where people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day, such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day), and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance (criteria are summarized in Table 15. It is noted that, with regards to construction vibration sources, many types of construction activities fall between the FTA's frequent, occasional, and infrequent event criteria due to the mostly intermittent and mobile nature of typical construction equipment.

Table 15
FTA Ground-Borne Vibration Impact Criteria for General Assessment

Vibration Land Use Category/Type	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB
Source: FTA, 2018			

The California Department of Transportation' (Caltrans) *Transportation and Construction Vibration Guidance Manual* provides a summary of human vibration responses and structural damage criteria that have been reported by researchers, organizations, and governmental agencies. Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and at high levels can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping (e.g., a hospital). Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response. Pile drivers and other pieces of high-impact construction equipment are generally the primary cause of construction-related vibration impacts; however, the proposed project would not require the use of pile drivers. Construction equipment and activities are categorized by the nature of the vibration they produce. Equipment or activities typical of continuous vibration sources include excavation and compaction equipment. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors.

The Caltrans' Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies and provides recommended thresholds for evaluating potential vibration impacts on buildings (i.e., structural damage). These thresholds are summarized in Table 16. The thresholds vary depending on

whether the vibration source is continuous or transient in nature. A transient source creates an isolated vibration event, such as blasting. Continuous sources also include sources with intermittent but frequent vibration events. While vehicle traffic is considered a continuous vibration source, many types of construction activities fall between continuous and transient in nature. Table 17 presents the typical vibration levels for the type of equipment that is most likely to be used during construction of the proposed project.

Table 16
Caltrans' Vibration Threshold Criteria for Building Damage

Structural and Condition	Peak Particle Velocity (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial and commercial structures	2.0	0.5

Source: Caltrans, 2020

Table 17
Ground-Borne Vibration from Typical Construction Equipment

Equipment	Peak Particle Velocity (in/sec)(A)					
	25 Feet	50 Feet	100 Feet	200 Feet	400 Feet	500 Feet
Small bulldozer	0.003	0.001	0.001	0.000	0.000	0.000
Jackhammer	0.035	0.016	0.008	0.004	0.002	0.001
Loaded truck	0.076	0.035	0.017	0.008	0.004	0.003
Large bulldozer	0.089	0.042	0.019	0.009	0.004	0.003
Vibratory Roller	0.210	0.098	0.046	0.021	0.010	0.008
Equipment	**Velocity Decibels (VdB)(B)**					
	25 Feet	50 Feet	100 Feet	200 Feet	400 Feet	500 Feet
Small bulldozer	58.0	49.0	39.9	30.9	21.9	19.0
Jackhammer	79.0	70.0	60.9	51.9	42.9	40.0
Loaded truck	86.0	77.0	67.9	58.9	49.9	47.0
Large bulldozer	87.0	78.0	68.9	59.9	50.9	48.0
Vibratory Roller	94.0	85.0	75.9	66.9	57.9	55.0

Sources: Caltrans, 2020 and FTA, 2018

(A) Estimated PPV calculated as: PPV(D)=PPV(ref)*(25/D)^1.1 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils).

(B) Estimated Lv calculated as: Lv(D)=Lv(25 feet)-30Log(D/25) where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 feet; and D= distance from equipment to receiver.

As shown in Table 17, potential vibration levels associated with construction equipment depend on the type of equipment used and the distance to the receptor. For structural damage, the use of equipment during construction activities would produce peak particle velocity (PPV) levels up to 0.098 in/sec at 50 feet. These PPV values are well below Caltrans' guidelines standards for potential structural damage for older residential structures (0.3 PPV for continuous vibration sources; see Table 16). For human annoyance and interference responses, the use of typical equipment (e.g., bulldozer, jack hammer, trucks, etc.) during construction could produce vibration levels that exceed the FTA's adverse human

response criteria for frequent events at occupied residential structures (72 VdB, see Table 15) within 80 feet of work areas. Thus, there is the potential for adverse human response from vibrations associated with typical project construction activities. For specific vibration-generating equipment such as a vibratory roller, construction could exceed the FTA's criterion for residential uses (72 VdB) at occupied structures within approximately 140 feet of vibratory roller operations. Thus, there is also the potential for adverse human response from vibrations generated by a vibratory roller during construction. These estimates assume there is no change in subsurface conditions that may affect vibration transmission through soil media and structures.

It is noted that potential construction-related vibrations would be intermittent (not occur every day), limited in duration (equipment would move throughout work areas and not operate in the same location for a prolonged amount of time), and occur during the daytime (when receptors would not be sleeping and, therefore, are considered less sensitive to vibration levels). As described above, the proposed project's construction activities would not result in physical damage to any existing structures, but could exceed FTA criteria for annoyance at occupied residences to the southeast and west of the project site. The generation of ground-borne vibration levels above the FTA's annoyance criterion would be a potentially significant impact. To reduce the potential for future development to generate excessive ground-borne vibration levels, the project shall incorporate Mitigation Measure NOI-2 into the project. Mitigation Measure NOI-2 requires the project proponent to limit the potential for ground-borne vibration during construction activities by prohibiting the use of certain vibration generating equipment. Mitigation Measure NOI-2 requires the project proponent to provide advance notice of construction activities, limit construction activities to daytime hours, and prohibit the use of certain vibration generating equipment that could exceed FTA standards intended to limit adverse human responses to ground-borne vibration levels. These measures would ensure equipment and work activities would not result in excessive vibrations that could lead to human annoyance. Therefore, this impact would be less than significant with mitigation.

Once constructed, the proposed project would not involve the use of equipment or activities that would generate excessive ground-borne vibration levels at adjacent residential properties and impacts would be less than significant.

c) Less Than Significant Impact. The proposed project site is located approximately 2.1 miles southeast from the nearest airport, Perris Valley Airport, and approximately 8.8 miles southeast from March ARB/IPA. The project site is located beyond the 60 dBA CNEL noise contours for Perris Valley Airport or March ARB/IPA (Riverside County Airport Land Use Commission 2010, Map PV-3 and Air Force Reserve Command 2018, Figure 4-2). Noise levels of up to 70 dBA CNEL are normally acceptable for new industrial uses without any special noise insulation requirements. Therefore, the proposed project would not expose people working in the project area to excessive aircraft noise levels. Impacts would be less than significant.

Mitigation Measures

NOI-1 **Reduce Potential Construction Noise Levels.** To reduce potential construction noise levels the project proponent shall:

A. *Notify Nearby Land Uses of Planned Construction Activities.* This notice shall be provided at least two (2) weeks prior to the start of any construction activities, describe the noise control measures to be implemented by the project, and include the name and phone number of the designated developer's or contractor's representative responsible for handling construction-related noise complaints (per Mitigation Measure NOI-1,

section E). This notice shall be provided to the owner/occupants of residential dwelling units within 250 feet of construction work areas.

B. *Restrict Work Hours:* Unless otherwise authorized by the City, all construction-related work activities, including material deliveries, shall be conducted only during the hours of 7 AM to 7 PM Monday to Saturday. Construction activities shall not occur any time on Sundays and legal holidays, excepting Columbus Day and Washington's Birthday. The project shall post a sign at all entrances to the work site informing contractors, subcontractors, other workers, etc. of this requirement.

C. *Construction Staging and Equipment Noise Control Measures*:

1. Construction site access and staging activities such as receipt of deliveries, equipment and material storage, etc., shall occur as far away from adjacent residential land uses as possible given site and active work constraints.
2. All stationary noise generating equipment shall be shielded and located as far as possible from residential land uses given site and active work constraints. Shielding may consist of trailers, stored materials, or a three- or four-sided enclosure provided the structure/barrier breaks the line of sight between the equipment and the receptor, provides for proper equipment ventilation and operations, and complies with all other applicable occupational safety and health requirements.
3. Heavy equipment shall include standard noise suppression devices such as mullers, engine covers, and engine/mechanical isolators, mounts, etc. Equipment and noise suppression devices shall be maintained in accordance with manufacturer's recommendations while on-site.
4. Pneumatic tools shall include a suppression device on the compressed air exhaust
5. Connect to existing electrical service to power stationary and portable equipment (e.g., pumps, generators, compressors, and welding sets). This measure shall be subject to the approval of the local electric utility.
6. No radios or other amplified sound devices shall be audible beyond the property line of the construction site.

D. *Construction Activity Noise Control Measures:*

1. Noise Barrier Installation: An 8-foot-tall noise barrier shall be installed during all site preparation, grading, and structural foundation work activities (including concrete slab pours) that have a direct line of sight to an occupied dwelling unit located within 75 feet of construction work areas. The barrier shall only be required along the portion of the job site / work area perimeter that lies between the active work area and the affected dwelling unit. The barrier shall consist of nominal 0.5-inch plywood with a minimum material density of 1.7 pounds per square foot installed, or other commercially available acoustic panels, blankets, etc. that have a minimum sound transmission class or transmission loss value of 20 dB. The barrier shall be installed at grade or mounted to structures located at grade, such as a K-rail, and be maintained free of openings or gaps (other than weep holes).
    a. Construction ingress/egress shall not be permitted through the barrier unless there is no other viable access point due to specific project constraints or other access requirements.
    b. The noise barrier may be removed following the completion of all site preparation, grading, building foundation, and paving work (i.e., it is not necessary once

framing and typical vertical building construction begins provided no other site preparation, grading, or paving work is still occurring in the area).

c. The noise barrier shall not be required if the proposed project's permanent 8-foot-tall and 14-foot-tall perimeter walls are installed prior to grading, building foundation, and paving activities (i.e., a temporary barrier is not required if a permanent barrier is already in place in the affected area).

NOI-2 **Prohibit Vibratory Equipment.** To reduce potential construction vibration levels the project proponent shall:

A. *Notify Nearby Land Uses of Planned Construction Activities.* See Mitigation Measure NOI-1, Section A.

B. *Restrict Work Hours.* See Mitigation Measure NOI-1, Section B.

C. *Prohibit Vibratory Equipment.* The use of vibratory rollers, vibratory/impact hammers and other potential large vibration-generating equipment (e.g., hydraulic breakers/hoe rams) shall be prohibited within 140 feet of any structure unless site- or project-specific conditions or design considerations require the use of such equipment. Plate compactors and compactor rollers are acceptable, and deep foundation piers or caissons shall be auger drilled.

4.15 – Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑

a) Less Than Significant Impact. The proposed project includes the development of a commercial contractor's yard containing an approximately 25,405-square-foot building, a lumber yard, and associated parking and landscaping improvements. The project would employ between ten and fifteen employees. These employees would most likely come from the existing population of the area. The project does not include the development of residential uses; therefore, the project would not directly generate population growth. Finally, the proposed project does not include extension of any roadway or other infrastructure; therefore, the project would not indirectly generate population growth. For these reasons, the project would not induce substantial unplanned population growth in the area. Potential impacts would be less than significant.

b) No Impact. The project site is vacant and does not contain residential uses or residents. The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impact would occur.

4.16 – Public Services

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☑	☐
b) Police protection?	☐	☐	☑	☐
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☑	☐

a) Less than Significant Impact. The City of Perris contracts with the Riverside County Fire Department to provide fire protection services within the City. The City has two fire stations within its boundaries that are served by 27 firefighters.[21] There are also three fire stations in the City of Menifee that provide services within the City of Perris. The proposed project consists of a commercial contractor's yard. All proposed structures and facilities would be required to adhere to the California Fire Code which would minimize the demand on fire stations, personnel, and equipment. Additionally, site access would be subject to plan check review by the City Building Division and the Riverside County Fire Department to ensure compliance with fire protection standards. The buildings would be equipped with fire extinguishers, wet and dry sprinkler systems, pre-action sprinkler systems, fire alarm systems, fire water pumps, backflow devices, and clean agent waterless fire suppression systems pursuant to the California Fire Code, California Building Code, and other existing regulations regarding fire safety.

The project would also not represent a use that would require unique or expanded fire protection services. The project would not require the building of new fire protection related buildings or structures. The project proponent would be required to pay development impact fees pursuant to Perris Municipal Code Chapter 19.68.020. Perris Municipal Code Chapter 19.68.020 sets forth policies, regulations, and fees related to the funding and construction of facilities (Community Facilities, Police, Fire, Parks and Recreation, Library, and Streets) necessary to address direct and cumulative environmental effects generated by new development. Development impact fees collected would ensure that the level of fire protection services is maintained and response times are improved and can be applied to the purchase of equipment, maintenance of existing facilities, and the construction of new facilities.

Both the City of Perris and the adjacent City of Menifee contract with the Riverside County Fire Department for fire protection services and the County's contracts with all participating jurisdictions are based on the principle of shared resources for fire safety. These contracts take a comprehensive approach, recognizing that as new fire stations are developed in participating jurisdictions, there will

eventually be an even distribution of service calls. At the present time, fire stations in Menifee are responding to more calls for service than those in Perris.

In the situation along the shared boundary with Menifee, Perris has already secured a 3.5-acre site for a future fire station at the northeast corner of Murrieta and Watson Road. Perris has allocated $1 million for the design and construction plans and is currently in the process of issuing a Request for Proposals to hire a contractor to manage and complete the construction of the fire station. Funding for the new fire station will be paid in part by the development impact fees collected for new development projects. Perris anticipates that this new fire station will be operational within the next 3 to 5 years. Once completed, the new Perris fire station will be just 0.6 mile from the Menifee city boundary, significantly closer than the nearest Menifee fire station located at 28349 Bradley Road, which is located 2.3 miles from the closest development in Perris. This development will, in time, help balance and exceed the historical service load provided by Menifee to Perris.

With the required payment of development impact fees and adherence to the California Fire Code, potential impacts associated with the proposed project would be less than significant.

b) Less Than Significant Impact. The City of Perris contracts with the Riverside County Sheriff's Office for police protection services.[22] The proposed project would include security lighting and cameras. No other increased demands for security would occur as a result of the proposed project. The project would not result in a substantial increase in demand for police services and subsequently not result in the provision of new or expanded police facilities beyond what was envisioned in the City of Perris General Plan.

As previously described, the proposed project would be required to adhere to Perris Municipal Code Chapter 19.68.020, which sets forth policies, regulations, and fees related to the funding and construction of facilities necessary to address direct and cumulative environmental effects generated by new development, including the need for new or expanded sheriff facilities. With the payment of the required development impact fees, impacts would be less than significant.

c) No Impact. The City of Perris is served by three school districts: (1) the Perris Elementary School District, (2) the Perris Union High School District, and (3) the Val Verde Unified School District.[23] The project site is located within the boundaries of the Perris Elementary School District and the Perris Union High School District. Including charter schools, the Perris Elementary School District has eight elementary schools and one middle school. The Perris Union High School District is comprised of five high schools (this includes the California Military Institute). The proposed project would not directly impact area schools, nor would it result in the demand for additional schools as there would be no increase in population. The project proponent would be required to offset indirect population growth with payment of school district impact fees. With the required payment of fees, the project would not require the construction or expansion of schools or education related facilities. Therefore, there would be no impact to schools as a result of the proposed project.

d) No Impact. The City of Perris maintains 22 parks and recreation facilities throughout the City.[24] The proposed project would not directly impact existing parks, nor would it result in the demand for additional parks as there would be no increase of population. There would be no impact on parks.

e) Less Than Significant Impact. The project would not result in an increase in residents that would generate additional demand for public facilities such as libraries or hospitals. Potential impacts to public roadway maintenance would be addressed through the taxes collected from the proposed facility. Therefore, impacts related to other public services would not occur as a result of the project.

4.17 – Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑

a) No Impact. The City of Perris maintains 22 parks and recreation facilities throughout the City.[25] The proposed project includes the construction of a commercial contractor's yard. The proposed project would not directly impact existing parks, nor would it result in the demand for additional parks as there would be no increase of population. The project would not result in the increased deterioration of a recreational facility. Therefore, no impact would occur.

b) No Impact. The project does not include any recreational facilities or require the construction of new recreational facilities. Therefore, there would be no impact.

4.19 – Transportation

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Impact Analysis* was prepared for the proposed project by Ganddini Group, dated September 11, 2026 (see Appendix B). The purpose of the project *Traffic Impact Analysis* is to evaluate the potential for transportation impacts resulting from development of the proposed project both in the context of the City of Perris' discretionary authority for conformance with locally established operational standards and the California Environmental Quality Act (CEQA). The *Traffic Impact Analysis* was prepared in consultation with City of Perris staff and in accordance with the procedures and methodologies for assessing transportation impacts established by the City of Perris. To assess the project's conformance with local operational standards, the *Traffic Impact Analysis* evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. A *Vehicle Miles Traveled (VMT) Screening Assessment* was also prepared for the proposed project by Ganddini Group, dated May 27, 2026 to satisfy the requirements of CEQA and California Senate Bill 743 (see Appendix B). The information in this section is largely taken from the project *Traffic Impact Analysis* and *VMT Screening Assessment*.

a) Less than Significant Impact.

Transit

Public Transit is provided within the City of Perris by the Riverside Transit Agency (RTA). The closest bus stop to the project site is at the corner of the Sherman Road and Jackson Avenue intersection to the north of the site (Route 28 – Perris Station-Hemet-Florida & New Chicago). Bus service route and schedules are reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either

enhanced or reduced service where appropriate. The proposed project is not anticipated to result in a significant increase in the number of people working or residing in the project area; therefore, the project would not result in a significant increase in ridership or use of RTD facilities. As such, the project would result in less than significant impacts to transit.

Roadways

Existing Roadway System: Regional access to the project site is provided by State Route 74/Case Road approximately 0.15 mile to the northeast and Interstate 215 approximately 0.38 mile to the west of the project site. Local north south circulation is provided by Trumble Road and Sherman Road; and east-west circulation is provided by Ethanac Road.

Sherman Road: This two-lane undivided roadway trends in a north-south direction and is unclassified on the City of Perris General Plan Circulation Element in the study area; however, Sherman Road is classified as a Major Arterial (4-lanes divided; 118 feet right-of-way/76 feet pavement) in the City of Menifee General Plan Circulation Element. The posted speed is 40 miles per hour in the project vicinity.

Ethanac Road: This two-lane divided to two-lane undivided roadway trends in an east-west direction and is classified as an Expressway (8-lane divided 184 feet right-of-way/134 feet pavement) on the City of Perris General Plan Circulation Element in the study area. Ethanac Road is classified as an Expressway (6 to 8-lane divided 200 to 216 feet right-of-way) in the City of Menifee General Plan Circulation Element. The posted speed is 45 miles per hour in the Project vicinity.

Highway 74/Case Road: State Route 74/Case Road intersect near Matthews Road and Interstate 215 (I-215). This two-lane divided to two-lane undivided roadway trends in a northwest-to-southeast direction. Highway 74 is classified as a Principal Arterial that serves as a major high-volume thoroughfare, though city-limit segments have historically faced relinquishment to local control. Case Road is a Minor Arterial/Major Collector that is maintained as a critical local corridor undergoing a significant capacity shift from a 2-lane to 4-lane layout with added multi-modal bike lanes.

Trumble Road: This two-lane divided to two-lane undivided roadway trends in a north-south direction and is unclassified on the City of Perris General Plan Circulation Element in the project vicinity; however, Trumble Road is classified as a Collector (2-lanes undivided; 74 feet right-of-way/44 feet pavement) in the City of Menifee General Plan Circulation Element. The posted speed is 45 miles per hour in the project vicinity.

The proposed project would include construction of Sherman Road to its ultimate half-section width, including landscaping and parkway improvements in conjunction with project development, or as otherwise required by the City. The project would also make fair share payments towards improvements to the intersection of Sherman Road and Ethanac Road. For this reason, the proposed project represents an improvement to the local roadway system.

Pedestrian and Bicycle Access

There are currently no sidewalks provided along Sherman Road along the project site frontage. There are also no existing bicycle facilities in the vicinity of the project site. However, a future bike lane (Class II) along Sherman Road and a future bike route Class III bicycle route is proposed in the Menifee General Plan along Trumble Road. In addition, the City of Perris General Plan Circulation Element plans for a Class IIB Buffered Bicycle Lane along Ethanac Road.

The southbound lane of Sherman Road would be constructed along the project frontage at its ultimate half-section width in conjunction with the proposed project. The project would be responsible for constructing half-width of the roadway per City standards which would include "space" for bike lanes and striping for this roadway segment. Pedestrian and bicycle access within the project site would be required to conform to standards and specifications identified in the Perris Municipal Code as well as CALGreen Code provisions accommodating and promoting bicycle access.

Adjacent to the project site, Sherman Road would convey heavy truck traffic. This roadway and any non-vehicular facilities (bikeways, bike paths, pedestrian paths) along this roadway would be designed and implemented in a manner that would minimize potential interaction of non-vehicular traffic with heavy truck traffic. As the project is further defined, the project applicant in consultation with the City would define appropriate non-vehicular facilities and their configurations along Sherman Road adjacent to the project site. For these reasons, the project would not conflict with any adopted policies or programs supporting pedestrian and bicycle access.

Other Considerations

Trucks accessing the project site would be required to travel along designated truck routes. I-215, Highway 74/Case Road, and Ethanac Road are designated as truck routes under the General Plans of both the City of Perris and the City of Menifee. Mandatory use of designated truck routes would minimize potential conflicts between truck traffic and other motorized and non-motorized transportation modes. Additionally, improvements to the area circulation system would be provided consistent with the recommendations of the project Traffic Impact Analysis and VMT Screening Assessment and as required by the project Conditions of Approval, acting generally to promote safe and efficient access.

Conclusion

Based on the preceding, the potential for the project to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities would be less than significant and no mitigation measures are required.

b) Less Than Significant Impact. California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the CEQA Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts 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. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

The *PM Design Group Green Bee Contractor Yard (PLN-24-05264) Vehicles Miles Traveled Screening Assessment* (Ganddini Group, May 27, 2026) concluded that: "The proposed project satisfies the City-established VMT screening criteria for projects with net daily trips less than 500 ADT. Therefore, the proposed project is exempt from preparation of a detailed VMT analysis and may be presumed to result in a less than significant VMT impact."

c) Less Than Significant Impact. A significant impact could occur if the proposed project substantially increased an existing hazardous design feature or introduced incompatible uses to the existing traffic pattern. Access to the site would be provided via a 40-foot wide driveway at the existing entrance at the northeast corner of the site along Sherman Road, and an internal access road that would provide internal circulation and access to the proposed lumber yard, building, and proposed parking areas.

As part of the City of Perris standard development review process, the project would comply with the following or similar conditions:

- A construction work site traffic control plan shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and shall be submitted to the City for review and approval prior to the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction related trips shall be restricted to off-peak hours to the extent possible.
- All on-site and off-site roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable State/Federal engineering standards to the satisfaction of the City of Perris.
- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Perris.
- Adequate emergency vehicle access shall be provided to the satisfaction of the Riverside County Fire Authority.
- The final grading, landscaping, and street improvement plans shall demonstrate that sight distance requirements are met in accordance with applicable City of Perris/California Department of Transportation sight distance standards.

The project consists of an industrial use within a semi-urbanized context defined by industrial, commercial, and residential land uses. Traffic generated by the project would be typical of existing industrial uses in the project vicinity. There are no atypical traffic generators in the project vicinity that would contribute substantial volumes of incompatible vehicles such as farm equipment. Roadway improvements at and around the project site would be designed and constructed to satisfy all City requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to site access requirements. The operation of the project would occur within a single, contiguous parcel and would not impact surrounding roads or create dangerous curves or intersections.

The proposed project does not involve changes in the alignment of any local roadway, and the proposed project is consistent with existing uses in the vicinity of the project site. During construction, the proposed project would comply will all local regulations regarding temporary road closures and/or one-way traffic controls. For these reasons, the potential for the project to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or result in inadequate emergency access would be less than significant.

d) 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. As discussed above, access to the site will be provided via a 40-foot wide driveway at the existing entrance at the northwest corner of the site along Sherman Road, and an internal access road that would provide access to the proposed lumber yard, the proposed building, and the proposed parking areas. The driveway width is sufficient to provide access to fire and emergency vehicles and is consistent with the California Fire Code requires a minimum of 20 feet. The project would be required to comply with City road and access design requirements as well as access standards and requirements outlined at Riverside County Fire Technical Policy 22-002. The final design of the project site plans and all project traffic improvements would be subject to review and approval by the City, thereby ensuring conformance of the project improvements with City design and safety standards. In addition, representatives of the Riverside County Fire Department and Riverside County Sheriff's Office would review the project's plans to ensure that emergency access is provided consistent with agency requirements.

Highway 74/Case Road would continue to serve as the primary evacuation and emergency access route within the area, as designated in the City of Perris General Plan Safety Element Figure S-1, while Ethanac Road would continue to serve as a secondary emergency access route. During construction activities associated with the proposed on- and off-site improvements, traffic lanes located immediately adjacent to the project site may be temporarily closed or controlled by construction personnel. However, this would be temporary and emergency, access to the project site and surrounding area would be required to be maintained at all times. Additionally, all construction staging would occur within the boundaries of the project site and would not interfere with circulation along Highway 74/Case Road, Ethanac Road, or any other nearby roadways. The proposed improvements would not impede or interfere with the adopted evacuation plan for the area. The project would therefore not result in adverse impacts with regard to emergency access. Potential impacts would be less than significant.

4.20 – Tribal Cultural Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Cultural 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☑	☐	☐

A *Historic/Archaeological Resources Survey Report* was prepared for the proposed project site by CRM TECH, dated December 5, 2024 (see Appendix D). The information in this section related to historic and cultural resources is taken from this report.

a.i) No Impact. A significant impact would occur if the proposed project would cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Resources of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). A records search and field reconnaissance conducted for the Cultural Report of this project did not identify any resources on the project site that are listed or eligible for listing in the California Register of Historical Resources or for local designation. Therefore, there are

no historical resources at the site. While the City has several historic landmarks and sites listed under its historic preservation program as defined in Public Resources Code Section 5020.1(k), the proposed project site is completely undeveloped and there are no buildings, structures, or features on the site that could be listed as a "historical resource." The project site was formerly used for agricultural purposes and recreational vehicle storage and is not known to be associated with an important historical period or important persons from the past. The project would not have any physical impacts outside the designated project area boundary. Therefore, the project would not result in any adverse change in the significance of a historical resource as defined in Public Resources Code Section 5020.1(k). No impact would occur.

a.ii) Less than Significant with Mitigation Incorporated. Government Code Sections 65352.3 and 65562.5 (SB 18); and Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 (AB 52) provide that a project that may cause a substantial adverse change to a defined Tribal Cultural Resource can result in a significant effect on the environment. Tribes must respond to a local government notice within 30 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan. The Lead Agency is required to notify tribes within 14 days of deeming a development application complete subject to CEQA to notify the requesting tribe as an invitation to consult on the project.

AB 52 identifies examples of mitigation measures that would avoid or minimize impacts to Tribal Cultural Resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of intent to adopt a negative declaration/mitigated negative declaration circulated on or after July 1, 2015. Although there is no indication of Tribal Cultural Resources at the project site, AB 52 is clear in stating that it is the responsibility of the Public Agency (i.e., Lead Agency) to consult with Native American tribes early in the CEQA process to allow tribal governments, lead agencies, and project proponents to discuss the appropriate level of environment review, identify and address potential adverse impacts to Tribal Cultural Resources, and reduce the potential for delay and conflict in the environmental review process (see Public Resources Code Section 2108.3.2). Specifically, government-to-government consultation may provide "tribal knowledge" of the project area that can be used in identifying Tribal Cultural Resources that cannot be obtained through other investigative means. Pursuant to AB 52, as the CEQA Lead Agency, the City of Perris sent consultation notification letters dated June 27, 2025 to the Agua Caliente Band of Cahuilla Indians, the Morongo Band of Mission Indians, the Pechanga Band of Mission Indians, the Rincon Band of Mission Indians, and the Soboba Band of Luiseño Indians (see Appendix J). City staff received two letters from two tribes. One letter was from the representative of the Agua Caliente Band of Cahuilla Indians requesting additional project information and documentation. These items were furnished to the Tribe and no further consultation was requested. The second letter was a request for consultation from the Soboba Band of Luiseño Indians; however, the City informed the Tribe that the 30 day consultation period had ended and their request for consultation was denied. No other Tribes responded to the letters sent by the City. The City has not been presented with any information or evidence regarding the presence or likelihood of any Tribal Cultural Resource occurring on or near the project site. In addition, Mitigation Measures CUL-1 and CUL-2 have been incorporated to address the unlikely event that archeological materials, including Tribal Cultural resources, and Native American human remains may be uncovered during ground-disturbing activities. With implementation of Mitigation Measures CUL-1 and CUL-2, potential impacts to unknown Tribal Cultural Resources would be less than significant. Therefore, impacts to Tribal Cultural Resources would be less than significant with mitigation incorporated.

4.21 – Utilities and Service Systems

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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, 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 and 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?	☐	☐	☐	☑

A *Project Specific Water Quality Management Plan* was prepared for the proposed project by JM Civil Engineering, dated October 7, 2024 (see Appendix H). Some of the information in this section is taken from this technical study.

a) Less than Significant Impact. Perris residents and businesses are served by the Eastern Municipal Water District (EMWD) for potable water, recycled water, and wastewater treatment. Water is imported via the California Aqueduct from northern and central California, which is managed by the Metropolitan Water District of Southern California (MWD). A secondary source of imported water is

provided by the Colorado River Aqueduct. According to the EMWD's 2020 Urban Water Management Plan, the EMWD will continue to rely on imported water from the MWD as the main source of supply. 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 approximately 241,200 acre-feet per year (during a normal year) by the year 2040, an increase of approximately 87,385 acre-feet per year.[26] Based on the CalEEMod assumptions for water usage, the proposed project's estimated water demand is approximately 17.96 acre-feet per year, well within the estimated increase in water demand for the EMWD. According to the 2020 Urban Water Management Plan, there is sufficient supply to accommodate demand under normal and single- and multiple-dry year conditions utilizing imported water.[27] 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. The proposed project is not anticipated to significantly increase water demand and would be within the estimated increase in water demand for the EMWD. The 2020 Urban Water Management Plan is based on area population projections as provided by SCAG. As discussed previously, the project is consistent with SCAG projections for the service area. As the estimated increase in water use is within the anticipated increase in the 2020 Urban Water Management Plan and the project is consistent with regional population projections; therefore, potential water supply impacts would be less than significant.

With regard to wastewater, new developments within the City of Perris are required to install wastewater infrastructure concurrent with project development. As such, the proposed project building would include an internal wastewater collection system that would connect to the existing EMWD sanitary sewer system in Sherman Road. The EMWD provides wastewater services to approximately 268,000 customers within its service area through 1,813 miles of sewer pipelines.[28] The EMWD currently treats approximately 49 million gallons per day of wastewater at its four active regional water reclamation facilities. Wastewater collected in the City of Perris is treated by the EMWD at the Perris Valley Regional Water Reclamation Facility. The Perris Valley Regional Water Reclamation Facility has typical inflows of 15.5 million gallons per day (mgd) and a capacity to treat 22.0 mgd; therefore, the facility has the capacity to treat an additional 6.5 mgd in potential future wastewater increases.

All project wastewater generated by the interior plumbing system of the proposed building would be discharged into the local sewer main and conveyed for treatment at the Perris Valley Regional Water Reclamation Facility. Wastewater would not be generated during operation of the proposed lumber yard. Wastewater is typically estimated to be 80 percent of total water use. Based on the CalEEMod assumptions, the proposed project's total estimated water demand would be approximately 5,851,273 gallons per year (16,031 gallons per day). Therefore, estimated wastewater generation from interior demand and outdoor irrigation demand for the proposed project would be 4,681,018 (12,825 gallons per day). This volume is well within Perris Valley Regional Water Reclamation Facility's remaining capacity of 22.0 mgd. This project would thus have a less than significant impact on the ability of the Perris Valley Regional Water Reclamation Facility to operate within its established wastewater treatment requirements, which are enforced via the facility's NPDES permit authorized by the Santa Ana Regional Water Quality Control Board. Therefore, the proposed project would have a less than significant impact related to wastewater treatment requirements of the Regional Water Quality Control Board.

With regard to stormwater, potentially significant impacts could occur as a result of the project if stormwater runoff was increased to a level that would require the construction of new storm drainage facilities. As discussed in the Hydrology section of this document, the project would not generate any increased runoff from the site that would require the construction of new storm drainage facilities. Additionally, pursuant to Perris Municipal Code Chapter 14.22 (Stormwater/Urban Runoff Management and Discharge Control), all construction projects are required to prepare and submit an SWPPP that incorporates BMPs to prevent erosion from entering the municipal stormwater system during

construction activities. BMPs typically include drainage controls such as detention ponds, dikes, filter berms, and downdrains to prevent runoff. New development projects in the City of Perris are also required to prepare a WQMP that describes the measures intended to eliminate, or reduce to the maximum extent practicable, pollutant discharges to the stormwater conveyance system primarily through the application and use of on-site design, source control, and treatment control BMPs after the construction phase (post-construction). The proposed storm drainage system and BMPs are required to be designed to the satisfaction of the City Engineer and in conformance with all applicable permits and regulations. Preparation of the SWPPP and WQMP would be required prior to issuance of grading permits. The project applicant/developer would be required to provide all necessary on-site stormwater infrastructure. Implementation of the requirements of the SWPPP and WQMP would reduce pollutants in stormwater and urban runoff from construction and operation of the proposed project. The proposed project would not result in or require the construction of new facilities or expansion of existing storm drainage facilities. Potential impacts would be less than significant, and no mitigation beyond compliance with existing regulations is required.

Impacts related to electric power, natural gas, and telecommunications facilities would also be less than significant. The project would connect to existing facilities and would not require any extension of services. Therefore, the proposed commercial contractor's yard 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, the construction or relocation of which could cause a significant environmental effect. Potential impacts would be less than significant with adherence to existing regulations occur.

b) Less Than Significant Impact. The EMWD would supply water to the project. Water is imported via the California Aqueduct from northern and central California, which is managed by the MWD. A secondary source of imported water is provided by the Colorado Rivers Aqueduct. According to the EMWD's 2020 Urban Water Management Plan, 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 approximately 241,200 acre-feet per year (during a normal year) by the year 2040, an increase of approximately 87,385 acre-feet per year.[29] Based on the CalEEMod assumptions for water usage, the proposed project's estimated water demand is approximately 17.96 acre-feet per year, well within the estimated increase in water demand for the EMWD. According to the 2020 Urban Water Management Plan, there is sufficient supply to accommodate demand under normal and single- and multiple-dry year conditions utilizing imported water.[30] 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.

The proposed project is not anticipated to significantly increase water demand and would be within the estimated increase in water demand for the EMWD. The 2020 Urban Water Management Plan is based on area population projections as provided by SCAG, which, in turn are based on City and County General Plan projections. The project does not include or require changes to the General Plan or zoning designations for the site and is consistent with SCAG projections for the service area. 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. Connections to local water mains would involve temporary and less than significant construction impacts that would occur in conjunction with other on-site improvements. The project site is located within the existing service area of the EMWD and is surrounded by existing development that is currently connected to existing EMWD water lines. No additional improvements are needed to water lines or facilities to serve the proposed project. Standard connection fees would address any incremental impacts of the proposed project. Therefore, potential impacts would be less than significant.

c) Less Than Significant Impact. Potentially significant impacts could occur as a result of the proposed project if the project results in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Wastewater collected in Perris is treated by the EMWD at the Perris Valley Regional Water Reclamation Facility; the facility has typical inflows of 15.5 mgd. Currently, the facility has the capacity to treat 22.0 mgd; as such, the facility has the capacity for potential future increases in wastewater. The proposed project is estimated to have a wastewater generation of approximately 12,825 gallons per day. This generation is well within the existing remaining treatment capacity of the Perris Valley Regional Water Reclamation Facility. Therefore, expansion of the existing facility would not be required as a result of the proposed project, and impacts would be less than significant.

Connections to local sewer mains would involve temporary and less than significant construction impacts that would occur in conjunction with other on-site improvements. The project site is located within the existing service area of the EMWD and is surrounded by existing development that is currently connected to existing EMWD wastewater lines. No additional improvements are needed to either sewer lines or treatment facilities to serve the project. Standard connection fees would address any incremental impacts of the project. Therefore, the project would result in less than significant impacts with regard to the need for new or expanded wastewater treatment facilities.

d) Less Than Significant Impact. Significant impacts could occur if the proposed project would exceed the existing permitted landfill capacity or violates federal, state, and local statutes and regulations. Solid waste disposal services in the City of Perris are provided by CR&R Incorporated. Waste from Perris is primarily transferred to the El Sobrante Landfill in Corona or the Badlands Sanitary Landfill in Moreno Valley. Several other landfills received substantially smaller amounts of waste, including the Sycamore Landfill in Santee and Lamb Canyon Sanitary Landfill in Beaumont. According to CalRecycle, these solid waste facilities currently have a combined annual disposal limit of 11,334,710 tons and a remaining lifetime capacity of 284,992,757 tons as of the year 2024.[31] Construction and operation of the proposed project is anticipated to result in the production of a small amount of solid waste. According to the CalEEMod default outputs, project operations are anticipated to generate approximately 27.1 tons (19.2 cubic yards) of solid waste annually. Overall, the amount of solid waste produced as a result of the proposed project is negligible compared to the daily waste produced in the City of Perris and in comparison to the capacity available at landfills serving the City of Perris. Compliance with County waste reduction programs and policies would also reduce the volume of solid waste entering landfills. Individual development projects within the 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 potential impact would be less than significant.

e) No Impact. The proposed project is required to comply with all applicable federal, state, County, and City statutes and regulations related to solid waste as a standard project condition of approval. Therefore, no impact would occur.

4.22 – Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑

a) No Impact. The project site is not located within or near any State Responsibility Areas or other wildland areas as designated by the California Department of Forestry and Fire Protection (CALFIRE).[32] In addition, the City of Perris General Plan Safety Element does not identify the project site or area as being within or near a wildfire hazard zone. The nearest such area is approximately 2.43 miles southwest of the project site. There are no wildland conditions in the mostly urbanized area where the project site is located. Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and no impact would occur.

b) No Impact. The project site is not located within a fire hazard zone, as identified on the latest Fire Hazard Severity Zones maps prepared by CALFIRE. There are no wildland conditions in the urbanized area where the project site is located. Therefore, the project would not exacerbate wildfire risks, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur.

c) No Impact. The project site is not located within or near any State Responsibility Areas. As a result, none of the project improvements would exacerbate fire risk or would result in a temporary or ongoing

impact from wildfires requiring the installation or maintenance of associated infrastructure that may exacerbate fire risk, or that may result in temporary or ongoing impacts to the environment. Therefore, no impact would occur.

d) No Impact. The project site is not located within or near any State Responsibility Areas. The project site is also not located in any FEMA 100-year flood floodplain or near any hills or mountains that and would not experience any post-fire mudslides or flooding. Therefore, the project would not 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 would occur.

4.23 – 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?	☐	☑	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☑	☐	☐

a) Less Than Significant with Mitigation Incorporated. The proposed project would not substantially impact any scenic vistas, scenic resources, or the visual character of the area, as discussed in Section 4.1, and would not result in excessive light or glare. The project site is located within a developed area with no natural habitat. The proposed project would not significantly impact any sensitive plants, plant communities, fish, wildlife, or habitat for any sensitive species. Impacts to migratory birds would be less than significant with the implementation of Mitigation Measure BIO-1. There are no jurisdictional waters on the project site. Adverse impacts to historic resources would not occur. The project site is not known to have any association with an important example of California's history or prehistory. However, Mitigation Measures CUL-1 and CUL-2 would be implemented to address the potential for important cultural or archaeological resources to be discovered during grading and Mitigation Measures GEO-1 would also be implemented to address the potential for important paleontological resources to be discovered during grading.

b) Less Than Significant with Mitigation Incorporated. Cumulative impacts can result from the interactions of environmental changes resulting from one proposed project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public services, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long-term, due to the permanent land-use changes and operational characteristics involved with the proposed project. Cumulative impacts would be less than significant with mitigation incorporated, as further discussed herein.

Aesthetics

The analysis provided in Section 4.1 found that potential impacts related to light spillover and light pollution would be reduced to less than significant with incorporation of Mitigation Measure AES-1.

Agricultural Resources

The analysis provided in Section 4.2 found that no individual impacts would occur; therefore, the project would not contribute considerably to local agriculture or forestry.

Air Quality

The analysis provided in Section 4.3 related to air quality found that impacts would be less than significant; therefore, the project would not cause a substantial contribution to localized or regional cumulative air quality impacts.

Biological Resources

The analysis provided in Section 4.4 found that no individual impacts to sensitive species or migratory birds would occur; therefore, the project could not contribute considerably to regional impacts on such species. It was also found that potential impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-1. The project would have no other impacts on biological resources and would not result in localized or regional cumulative impacts.

Cultural Resources

Loss of on-site archaeological resources could reduce or eliminate important information relevant to the County of Riverside and the City of Perris. As discussed in Section 4.5, impacts related to cultural resources were found to be potentially significant and require mitigation to reduce to less than significant levels; therefore, the project could contribute considerably to significant localized cumulative impacts in this topic area. Mitigation Measures CUL-1 and CUL-2 have been incorporated to reduce potential impacts to archaeological resources and buried human remains. Implementation of Mitigation Measures CUL-1 and CUL-2 would eliminate any potential loss of important local archaeological information or human remains that may be buried under the project site; therefore, the proposed project would have no contribution to a cumulative loss of important local or regional archaeological knowledge.

Energy

The analysis provided in Section 4.6 found that no individual impacts related to energy use would occur as a result of the proposed project. Therefore, the project will not contribute to cumulative energy impacts.

Geology and Soils

As discussed in Section 4.7, impacts related to geology at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Impacts related to paleontological resources were found to be potentially significant and require mitigation to reduce to less than significant levels; therefore, the project could contribute considerably to significant localized cumulative impacts in this topic area. However, implementation of Mitigation Measure GEO-1 would eliminate any potential loss of important local paleontological information that may be buried under the project site. As such, the

proposed project would have no contribution to a cumulative loss of important local or regional paleontological knowledge and no cumulative impacts related to this topic would occur.

Greenhouse Gas Emissions

As discussed in Section 4.8, climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. The project would not contribute considerably to cumulative global climate change.

Hazardous Materials

The analysis provided in Section 4.9 related to hazards and hazardous materials found that impacts would be less than significant. Compliance with all regulations related to the disposal and storage of hazardous waste/materials would ensure that potential impacts would be less than significant.

Airport Hazards

The analysis provided in Section 4.9(e) found that impacts related to airport hazards at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Therefore, no cumulative impacts related to this topic would occur.

Drainage/Water Quality

The analysis provided in Section 4.10 (a), (c), (d), (e), and (f), found that less than significant individual, local, or regional impacts would occur; therefore, while the proposed project would contribute to individual, localized or regional cumulative impacts, its contribution would not be considerable.

Groundwater Levels

The analysis provided in Section 4.10 (b) found that less than significant local or regional impacts would occur; therefore, while the project would contribute to individual, localized, or regional cumulative impacts, the project contribution would not be considerable.

Flooding

The analysis provided in Section 4.10 (d) found that no regional impacts would occur; therefore, no cumulative impacts related to this topic would occur.

Land Use and Planning

The analysis provided in Section 4.11 related to Land Use and Planning found that impacts would be less than significant; therefore, while the proposed project would contribute to individual, localized, or regional cumulative impacts, its contribution would not be considerable.

Mineral Resources

The analysis provided in Section 4.12 related to mineral resources found that there would be no impact; therefore, no cumulative impacts related to this topic would occur.

Noise

As discussed in Section 4.12, on-site operational noise is not anticipated to result in perceptible increases in ambient noise with the implementation of Best Management Practices. Therefore, the proposed project would not contribute considerably to noise levels in the immediate vicinity of the project. The project would contribute to temporary increases in noise levels and perceptible vibration in the immediate project vicinity during construction activities which would be in excess of local standards; however, Mitigation Measures NOI-1 and NOI-2 would be incorporated to ensure that impacts to nearby sensitive receptors remain less than significant. The project would increase traffic in the project area; however, project traffic-related noise would not be discernible (as discussed in Section 4.13.a) to the public and, therefore, would not result in a considerable contribution to cumulative traffic-related noise.

Population and Housing

The analysis provided in Section 4.14 related to Population and Housing found that no impacts would result; therefore, no cumulative impacts related to this topic would occur.

Public Services

The analysis provided in Section 4.15 related to Public Services found that impacts would be less than significant; therefore, while the proposed project would contribute to localized cumulative impacts, the project contribution would not be cumulatively considerable.

Recreation

The analysis provided in Section 4.16 related to Recreation found that there would be no impact; therefore, no cumulative impacts related to this topic would occur.

Traffic and Transportation

Traffic conditions were analyzed in Section 4.17 and found to be less than significant. There is, and would be, adequate capacity to serve the uses along Sherman Road with the addition of the proposed project. Therefore, the proposed project's contribution to cumulative impacts to local and regional transportation facilities would not be considerable.

Tribal Cultural Resources

The analysis provided in Section 4.18 related to Tribal Cultural Resources identified that despite the previous disturbances of the project site and developed nature of the project area that may have displaced or submerged archaeological resources relating to Tribal Cultural Resources on the surface, it is possible that intact tribal cultural resources exist at depth. Due to this uncertainty, Mitigation Measures CUL-1 and CUL-2 have been incorporated to address any previously undiscovered archaeological resources (including buried human remains) relating to Tribal Cultural Resources encountered during project implementation. Incorporation of these mitigation measures would ensure that potential impacts to buried Tribal Cultural Resources are less than significant through requirements for evaluation, salvage, curation, and reporting.

Utilities and Service Systems

The analysis provided in Section 4.19 related to Utilities and Service Systems found that impacts would be less than significant; therefore, while the project would contribute to localized or regional cumulative impacts, the project contribution would not be considerable.

Wildfire

The analysis provided in Section 4.9(g) and 4.20 related to wildfire found that no individual, local, or regional impacts would occur; therefore, no cumulative impacts related to this topic would occur.

c) Less Than Significant with Mitigation Incorporated. Based on the analysis of the proposed project's impacts in the responses to items 4.1 thru 4.20, there is no indication that the project could result in substantial adverse effects on human beings. While there would be a variety of temporary adverse effects during construction related to water quality and noise, these would be reduced to less than significant levels through mitigation. Long-term effects include increased vehicular traffic, traffic-related noise, use of household hazardous materials, emissions of criteria pollutants and greenhouse gas emissions, and increased demand for emergency response services. The analysis herein concludes that direct and indirect environmental effects would at worst require mitigation to reduce to less than significant levels. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings would be less than significant with mitigation incorporated.

AES-1 **Prevent Light Spillover.** Prior to issuance of grading permits, the Project Proponent shall provide evidence to the City that any temporary nighttime lighting installed for security purposes shall be downward facing and hooded or shielded to prevent security light spillage by one foot candle to surrounding properties outside of the staging area or direct broadcast of security light into the sky.

BIO-1 **Pre-Construction Nesting Bird Survey.** In order to avoid violation of the Migratory Bird Treaty Act 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 Migratory Bird Treaty Act or the California Fish and Game Code are present within 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 project biologist shall immediately establish a conservative avoidance buffer surrounding the nest based on their best professional judgement and experience. The project 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) to determine the efficacy of the buffer. If the project biologist determines that such project activities may be causing an adverse reaction, the project 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 project biologist shall review and verify compliance with these nesting avoidance buffers and shall 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 City of Perris Planning Division for mitigation monitoring compliance record keeping.

CUL-1 **Archaeological Monitoring.** 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). The primary task of the project archaeologist shall be to monitor the initial ground-disturbing activities at both the project site and any off-site project-related improvement areas for the identification of any previously unknown archaeological and/or cultural resources. 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 project site or within off-site project improvement areas until the archaeologist has been approved by the City.

The project archaeologist shall be responsible for monitoring ground-disturbing activities, 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 project 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 or within off-site project improvement areas, 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 project 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 and the Soboba 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 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 artifacts as deemed possible. The designated Native American 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 Native American tribe. If the find is determined to be of sacred or religious value, the Native American tribal representative will work with the City and project archaeologist to protect the resource in accordance with tribal requirements. All analysis shall be undertaking in a manner that avoids destruction or other adverse impacts.

In the event that human remains are discovered at the project site or within off-site project improvement areas, Mitigation Measure CUL-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 would be subject to a fully executed relocation/reburial agreement with the assisting Native American tribe. This shall include, but not be limited to, an agreement that artifacts will 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 project 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.

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 project 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 South Coastal Information Center, and the Native American tribe(s) involved with the project.

CUL-2 **Discovery of Human Remains.** In the event that human remains (or remains that may be human) are discovered at the project site or within the off-site project improvement areas during ground-disturbing activities, the construction contractors, 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 would 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 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 will 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 will be filed with the South Coastal Information Center.

GEO-1: Prior to the issuance of grading permits, the project proponent shall submit to and receive approval from the City a Paleontological Resource Impact Mitigation Monitoring Program (PRIMMP). The PRIMMP shall include the provision of a qualified professional paleontologist (or his or her trained paleontological monitor representative) during on-site full time for any project-related subsurface excavation. Selection of the paleontologist shall be subject to approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the paleontologist has been approved by the City.

Monitoring shall be restricted to undisturbed subsurface areas of older quaternary alluvium. The project paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The project paleontologist shall also remove samples of sediments which are likely to contain fossil remains of small vertebrates or in vertebrates. The project paleontologist shall have the power to temporarily halt or divert grading equipment to allow for the 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 procedures 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, would signify completion of the program to mitigate potential impacts on paleontological resources.

NOI-1 **Reduce Potential Construction Noise Levels.** To reduce potential construction noise levels the project proponent shall:

A. *Notify Nearby Land Uses of Planned Construction Activities.* This notice shall be provided at least two (2) weeks prior to the start of any construction activities, describe the noise control measures to be implemented by the project, and include the name and phone number of the designated developer's or contractor's representative responsible for handling construction-related noise complaints (per Mitigation Measure NOI-1, section E). This notice shall be provided to the owner/occupants of residential dwelling units within 250 feet of construction work areas.

B. *Restrict Work Hours:* Unless otherwise authorized by the City, all construction-related work activities, including material deliveries, shall be conducted only during the hours of 7 AM to 7 PM Monday to Saturday. Construction activities shall not occur any time on Sundays and legal holidays, excepting Columbus Day and Washington's Birthday. The project shall post a sign at all entrances to the work site informing contractors, subcontractors, other workers, etc. of this requirement.

C. *Construction Staging and Equipment Noise Control Measures*:

1. Construction site access and staging activities such as receipt of deliveries, equipment and material storage, etc., shall occur as far away from adjacent residential land uses as possible given site and active work constraints.

2. All stationary noise generating equipment shall be shielded and located as far as possible from residential land uses given site and active work constraints. Shielding may consist of trailers, stored materials, or a three- or four-sided enclosure provided the structure/barrier breaks the line of sight between the equipment and the receptor, provides for proper equipment ventilation and operations, and complies with all other applicable occupational safety and health requirements.

3. Heavy equipment shall include standard noise suppression devices such as mullers, engine covers, and engine/mechanical isolators, mounts, etc. Equipment and noise suppression devices shall be maintained in accordance with manufacturer's recommendations while on-site.

4. Pneumatic tools shall include a suppression device on the compressed air exhaust
5. Connect to existing electrical service to power stationary and portable equipment (e.g., pumps, generators, compressors, and welding sets). This measure shall be subject to the approval of the local electric utility.
6. No radios or other amplified sound devices shall be audible beyond the property line of the construction site.

D. *Construction Activity Noise Control Measures:*

1. Noise Barrier Installation: An 8-foot-tall noise barrier shall be installed during all site preparation, grading, and structural foundation work activities (including concrete slab pours) that have a direct line of sight to an occupied dwelling unit located within 75 feet of construction work areas. The barrier shall only be required along the portion of the job site / work area perimeter that lies between the active work area and the affected dwelling unit. The barrier shall consist of nominal 0.5-inch plywood with a minimum material density of 1.7 pounds per square foot installed, or other commercially available acoustic panels, blankets, etc. that have a minimum sound transmission class or transmission loss value of 20 dB. The barrier shall be installed at grade or mounted to structures located at grade, such as a K-rail, and be maintained free of openings or gaps (other than weep holes).
    a. Construction ingress/egress shall not be permitted through the barrier unless there is no other viable access point due to specific project constraints or other access requirements.
    b. The noise barrier may be removed following the completion of all site preparation, grading, building foundation, and paving work (i.e., it is not necessary once framing and typical vertical building construction begins provided no other site preparation, grading, or paving work is still occurring in the area).
    c. The noise barrier shall not be required if the proposed project's permanent 8-foot-tall and 14-foot-tall perimeter walls are installed prior to grading, building foundation, and paving activities (i.e., a temporary barrier is not required if a permanent barrier is already in place in the affected area).

NOI-2 **Prohibit Vibratory Equipment.** To reduce potential construction vibration levels the project proponent shall:

A. *Notify Nearby Land Uses of Planned Construction Activities.* See Mitigation Measure NOI-1, Section A.

B. *Restrict Work Hours.* See Mitigation Measure NOI-1, Section B.

C. *Prohibit Vibratory Equipment.* The use of vibratory rollers, vibratory/impact hammers and other potential large vibration-generating equipment (e.g., hydraulic breakers/hoe rams) shall be prohibited within 140 feet of any structure unless site- or project-specific conditions or design considerations require the use of such equipment. Plate compactors and compactor rollers are acceptable, and deep foundation piers or caissons shall be auger drilled.

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6 References

6.1 – List of Preparers

City of Perris (Lead Agency)
101 North D Street
Perris, CA 92570
(951) 943-5003

- Monica Carranza, Assistant Planner

MIG, Inc.
1650 Spruce Street, Suite 106
Riverside, CA 92507
(951) 787-9222

- Pam Steele, Principal
- Cameron Hile, Project Manager
- Kasey Kitowski, Air Quality and Noise Analyst

Converse Consultants (Phase I ESA)
8333 Foothill Blvd. Suite 104
Rancho Cucamonga, CA 91730
(909) 796-0544

- Laura Tanaka, Principal Environmental Scientist
- Theresa Duncan, Staff Environmental Scientist

CRM TECH (Cultural Resources)
1016 E. Cooley Dr., Suite A/B
Colton, CA 92324
(909) 824-6400

- Bai "Tom" Tang, Principal Investigator
- Michael Hogan, Principal Investigator

Ganddini Group (Transportation)
550 Parkcenter Drive, Suite 202
Santa Ana, CA 92705
(714) 795-3100

- Giancarlo Ganddini, PE/PTP, Principal Traffic Engineer
- Bryan Crawford, Senior Transportation Analyst

6.2 – Bibliography

1 California Department of Transportation. California Scenic Highway Program. Riverside County. https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa [Accessed August 2026].

2 California Department of Conservation. DLRP Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. [Accessed August 2026].

3 California Department of Conservation. Williamson Act Program. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_w_15_16_WA.pdf [Accessed August 2026].

4 City of Perris. *Draft Environmental Impact Report: City of Perris General Plan 2030* (State Clearinghouse # 2004031135). October 2004.

5 City of Perris. *City of Perris Comprehensive General Plan 2030: Safety Element, Figure S-6 (Earthquake Faults and Liquefaction Susceptibility)*. January 25, 2022.

6 City of Perris. *City of Perris Comprehensive General Plan 2030: Safety Element, Figure S-7 (Landslide Susceptibility)*. January 25, 2022.

7 State Water Resources Control Board. GeoTracker. https://geotracker.waterboards.ca.gov/ [Accessed August 2026].

8 California Environmental Protection Agency. Cortese List Data Resources. http://www.calepa.ca.gov/sitecleanup/corteselist/ [Accessed August 2024].

9 California Department of Toxic Substances Control. DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List). http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm [Accessed August 2026].

10 California State Water Resources Control Board. GeoTracker. https://geotracker.waterboards.ca.gov/ [Accessed August 2026].

11 California State Water Resources Control Board. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. http://www.calepa.ca.gov/files/2016/10/SiteCleanup-CorteseList-CurrentList.pdf [Accessed August 2026].

12 California State Water Resources Control Board. List of Active Cease and Desist Order and Cleanup and Abatement Order. http://www.calepa.ca.gov/sitecleanup/corteselist/ [Accessed August 2026].

13 California Department of Toxic Substances Control. Cortese List: Section 65962.5(a). https://www.calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/ [Accessed August 2026].

14 Riverside County Fire Hazard Severity Zones Maps. https://koordinates.com/layer/96850-riverside-county-ca-fire-hazard-severity-zones/. [Accessed August 2026].

15 City of Perris. *City of Perris Comprehensive General Plan 2030: Safety Element, Figure S-5 (Wildfire Hazards)*. January 25, 2022.

16 Federal Emergency Management Agency. Flood Insurance Rate Map. Map Number 06065C2060H. August 18, 2014.

17 City of Perris. *City of Perris Comprehensive General Plan 2030: Safety Element, Figure S-3 (FEMA Flood Hazard Zones)*. January 25, 2022.

18 City of Perris. *City of Perris Comprehensive General Plan 2030: Safety Element, Figure S-4 (Dam Inundation Zones)*. January 25, 2022.

19 California Department of Water Resources. Perris Dam Modernization Program. https://water.ca.gov/Programs/Engineering-And-Construction/Perris-Dam-Remediation [Accessed September 2026].

[20] California Department of Conservation. DOC Maps: Mines and Mineral Resources. https://maps.conservation.ca.gov/mineralresources/ [Accessed September 2026].

[21] City of Perris. City of Perris Website: Departments. https://www.cityofperris.org/departments/fire [Accessed September 2026].

[22] City of Perris. City of Perris Website: Departments. https://www.cityofperris.org/departments/police [Accessed September 2026].

[23] City of Perris. City of Perris Website: Our City. https://www.cityofperris.org/our-city/community-info/schools [Accessed September 2026].

[24] City of Perris. City of Perris Website: Departments. https://www.cityofperris.org/departments/community-services/parks [Accessed September 2026].

[25] City of Perris. City of Perris Website: Departments. https://www.cityofperris.org/departments/community-services/parks [Accessed September 2026].

[26] Eastern Municipal Water District. *Eastern Municipal Water District 2020 Urban Water Management Plan*. July 1, 2021.

[27] Eastern Municipal Water District. *Eastern Municipal Water District 2020 Urban Water Management Plan*. July 1, 2021.

[28] Eastern Municipal Water District. EMWD Website: What We Do – Wastewater Service. https://www.emwd.org/what-we-do/wastewater-service [Accessed September 2026].

[29] Eastern Municipal Water District. *Eastern Municipal Water District 2020 Urban Water Management Plan*. July 1, 2021.

[30] Eastern Municipal Water District. *Eastern Municipal Water District 2020 Urban Water Management Plan*. July 1, 2021.

[31] CalRecycle. Solid Waste Facilities, Sites, and Operations. https://calrecycle.ca.gov/SWFacilities/ [Accessed September 2026].

[32] Riverside County Fire Hazard Severity Zones Maps. https://koordinates.com/layer/96850-riverside-county-ca-fire-hazard-severity-zones/. [Accessed September 2026].

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PLANNING AND ENVIRONMENTAL SERVICES

Technical Memorandum

To: Rami Dabliz, PM Design

From: Cameron Hile, Project Manager MIG

CC: Kasey Kitowski, Air Quality Analyst MIG

Date: October 8, 2026

SUBJECT: Air Quality, Greenhouse Gas, and Energy Analysis for the Green Bee Contractor Yard Project in Perris, CA

MIG, Inc. (MIG) has prepared this memorandum at the request of PM Design Group. This memorandum estimates the potential air quality and greenhouse gas (GHG) emissions and energy consumption levels for the proposed Green Bee Concrete Contractor Yard (proposed project) and evaluates project emissions against applicable South Coast Air Quality Management District (South Coast AQMD)-recommended California Environmental Quality Act (CEQA) significance thresholds.

PROJECT DESCRIPTION

The proposed project would involve the development of a new contractor yard with an approximately 25,405 square foot building, an approximately 43,470 square foot lumber yard, and a parking lot with 150 passenger vehicle spaces and 29 truck spaces. The proposed project would be located in the southeastern part of the City of Perris at 25775 Sherman Road (Assessor's Parcel Number (APN) 329-240-031 and 329-240-028). The project site consists of an irregularly-shaped, approximately 5.5-acre undeveloped parcel of land zoned as Light Industrial.

Vehicles would access the site from Sherman Road using a driveway in the northeast corner of the site. The remainder of the northern portion of the site would be covered by the parking lot, with passenger vehicle parking located to the east and truck parking located to the west. The project building, which would include a storage facility and mechanics shop, would be located in the southeast portion of the site, and the lumber yard, which would include three covered shade/storage structures, would be located in the southwest portion of the site. Refer to Attachment 01 for the project's proposed site plan.

The proposed project site is bordered by a recycling center to the north, Sherman Road to the east, a residential and a light industrial property to the southeast, undeveloped land to the south, and undeveloped land and residential land in the City of Menifee to the west. State Route 74 (SR-74) is located approximately 670 feet northeast of the project site and Interstate 215

(I-215) is located approximately 0.4 miles west.[1] There are no schools located within 1,000 feet of the project site.[2]

[1] Measurements are based on the distance between the project site's nearest property line and the edge of the closest lane of travel.

[2] The closest school is Romoland Elementary School located approximately 0.5 miles west of the project site.

The proposed project would involve site preparation, grading, new building construction, paving, and architectural coating. Construction activities are assumed to begin as early as 2027 and last approximately 14 months. The proposed project's construction schedule and anticipated equipment usage is listed in Table 1.

Table 1: Green Bee Concrete Contractor Yard Project Construction Activities

Construction Phase	Duration (Days)	Typical Equipment Used
Site Preparation	10	Dozer, Tractor/Loader/Backhoe
Grading	20	Grader, Dozer, Excavator, Tractor/Loader/Backhoe
Building Construction	230	Crane, Forklift, Tractor/Loader/Backhoe, Generator, Welder
Paving	20	Paver, Roller, Paving Equipment
Architectural Coating	20	Air Compressor

The project is expected to be operational in 2028. Once operational, the project would operate as a commercial land use and is expected to generate approximately 340 gross vehicle trips per day (Ganddini 2026a).

The proposed project's air quality, GHG, and energy impacts are evaluated below.

AIR QUALITY ANALYSIS

The proposed project is located within the South Coast Air Basin, where efforts to attain state and federal air quality standards are governed by the South Coast AQMD. Both the State of California and the federal government have established health-based ambient air quality standards (CAAQS and NAAQS) for seven air pollutants (known as criteria pollutants). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead. California has also established state standards for additional pollutants. The ambient air quality standards are designed to protect the health and welfare of the populace within a reasonable margin of safety. The U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the South Coast AQMD assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against the national and California ambient air quality standards. Based on these comparisons, regions are classified into one of the following categories:

- **Attainment.** A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the national and California ambient air quality standards. In addition, an area that has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the national or California ambient air quality standards are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some national and California ambient air quality standards require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and state laws require nonattainment areas to develop strategies, plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.

- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Air pollution levels are measured at monitoring stations located throughout the South Coast Air Basin. Table 2, South Coast Air Basin Attainment Status, summarizes the South Coast Air Basin's attainment status for the national and California ambient air quality standards.

Table 2: South Coast Air Basin Attainment Status

Pollutant	Attainment Status(A)	
	NAAQS	CAAQS
Ozone (1-hr)	Nonattainment	Nonattainment
Ozone (8-hr)	Nonattainment	Nonattainment
PM_{10} (24-hr and Annual)	Attainment	Nonattainment
$PM_{2.5}$ (24-hr)	Nonattainment	--
$PM_{2.5}$ (Annual)	Nonattainment(B)	Nonattainment
Carbon Monoxide	Attainment (Maintenance)	Attainment
Nitrogen dioxide (1-hr)	Attainment	Attainment
Nitrogen dioxide (Annual)	Attainment (Maintenance)	Attainment
Sulfur dioxide	Attainment	Attainment
Lead	Partial Nonattainment	Attainment
Visibility Reducing Particles	--	Unclassified
Sulfates	--	Attainment
Hydrogen Sulfide	--	Attainment

Source: South Coast AQMD, 2018

(A) This table summarizes the South Coast Air Basin's attainments status for the NAAQS and CAAQS (as of September 2018). This table does not present comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Refer to the table source for detailed information on the NAAQS and CAAQS.

(B) The nonattainment designation was based on the 2012 $PM_{2.5}$ national standard. The EPA lowered the standard (i.e., updated the standard to be more stringent), with the current national $PM_{2.5}$ standard finalized in 2024. The EPA has not yet determined a designation status for the 2024 standard.

The proposed project would generate both short-term construction emissions and long-term operational emissions. The South Coast AQMD adopts rules that establish permissible air pollutant emissions levels for a variety of business, processes, operations, and products to subject to Federal and State air quality requirements. In general, the proposed project and its potential emissions sources would be subject to the following State and South Coast AQMD rules:

- **Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.

- **Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or lower.
- **Rule 1113 (Architectural Coatings)** establishes maximum concentrations of volatile organic compounds (VOCs) in paints and other applications and establishes the thresholds for low-VOC coatings.
- **Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package or repackage of any consumer paint thinner or multi-purpose solvent for use in the District unless consumer paint thinners or other multi-purpose solvents comply with applicable VOC content limits.

These South Coast AQMD rules would serve to limit and control the proposed project's potential to emit air pollutants. As described in more detail below, the proposed project would not generate short-term or long-term emissions that exceed South Coast AQMD-recommended pollutant thresholds.

Regional Construction and Operational Emissions

The construction of the proposed project would include site preparation, grading, building construction, paving, and architectural coating work.

The proposed project's potential construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.46. Construction phase and duration and the type and amount of equipment used during construction were generated using CalEEMod default assumptions and modified as necessary to reflect the following project-specific context, information, and details:

- The demolition phase was removed, since the project site is currently undeveloped;
- The horsepower for the excavator was increased from 36 to 158 horsepower
- Fugitive dust control measures were incorporated into the model consistent with the requirements contained in South Coast AQMD Rule 403, Fugitive Dust.

The proposed project's maximum daily unmitigated construction emissions are shown in Table 3, Unmitigated Maximum Daily Regional Construction Emissions. Refer to Attachment 02 for CalEEMod output files and detailed construction emissions assumptions.

Table 3: **Unmitigated Maximum Daily Regional Construction Emissions**

Construction Season	Maximum Pollutant Emissions (Pounds Per Day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer 2025	1.2	10.6	13.8	<0.1	0.6	0.4
Winter 2025	3.4	31.7	31.2	<0.1	9.3	5.2
Winter 2026	14.6	7.2	10.8	<0.1	0.5	0.3
South Coast AQMD Regional Thresholds[(A)]	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: MIG, 2026 (See Attachment 02) and South Coast AQMD, 2023.

As shown in Table 3, the proposed project's maximum daily, unmitigated criteria air pollutant emissions would be well below the South Coast AQMD's recommended regional pollutant thresholds. Project construction, therefore, would not generate criteria air pollutant emissions levels that exceed South Coast AQMD regional CEQA thresholds.

Once operational, the proposed project would generate long-term emissions from the following sources:

- **Area Sources.** The proposed project would generate emissions from small area sources, including landscaping equipment, the use of consumer products (e.g., paints, cleaners, and fertilizers) that result in the evaporation of chemicals into the atmosphere during product use.
- **Energy Sources**. The proposed project would generate emissions from the combustion of natural gas in water and space heating equipment.
- **Mobile Sources.** The proposed project would generate emissions from vehicles traveling to and from the project site.
- **Off-Road Sources.** The proposed project would generate emissions from three (3) forklifts that would load materials into delivery trucks onsite.
- **Stationary Sources.** The proposed project would generate wood dust from the operation of two (2) table saws. Wood dust produced by the table saw blades are not quantified in this memorandum, as they would be required to meet Occupational Safety and Health Administration (OSHA) and Cal/OSHA exposure limits (OSHA 2023).

The proposed project's operational emissions were also estimated using CalEEMod, Version 2022.1.1.46. The modeling is based on the project's first year of operations (assumed to be 2026), using default data assumptions generated by CalEEMod, modified as necessary to reflect the following project-specific context, information, and details:

- Project-specific land use information (i.e., lot acreage, building square footage, etc.) was applied to the model;
- Project-specific weekday trip generation rates were applied to the model (Ganddini 2026). Weekend trips were removed from the model to reflect the project's Monday through Friday operating days.
- Passenger vehicle trip length was adjusted to 17.5 miles, consistent with the region's employee VMT rate (Ganddini 2026b). Truck trip length was increased to 40 miles, consistent with South Coast AQMD activity data for Class 8 trucks (South Coast AQMD 2021). While the project would include trucks in Class 4-7 (which have a shorter average trip length) as well as Class 8, the truck trip length was set to 40 miles for all truck types, providing a conservative estimate of mobile source emissions.
- Fleet mix was determined using the fleet mix data in the traffic report (Ganddini 2026a) and a project-specific truck inventory (6 equipment transport trucks, 6 concrete trucks, and 12 delivery/pickup trucks) (PM Design Group 2024). The 4+ axle trucks in the traffic report's fleet mix (i.e., trips from the freightliner semitruck and trailer) were modeled as heavy-heavy duty (HHD) trucks, the 3-axle truck trips (i.e., concrete trucks and freightliner trucks) and 2-axel truck trips (i.e., freightliner flatbed and Chevy 5500 delivery trucks) were modeled as medium-heavy duty truck trips. The remaining delivery trucks (i.e., the LDT1 and MDV trucks) would be passenger vehicles. To estimate the passenger car fleet mix consisting of employee trips and the lighter delivery trucks, the number of trips the traffic report attributed to on-street employee parking at the existing facility were assumed to be employee trips using CalEEMod default fleet mix for passenger cars, and the remaining passenger trips were assumed to be delivery pickup truck trips. This is a conservative estimate of emissions, since it undercounts the percentage of employee trips, which would include some on-site parking at the existing facility in addition to on-street parking, compared to delivery truck trips, which would have a higher emissions rate. Since the exact fleet mix of the light-duty delivery trucks is

unknown, it was assumed that there would be one LDT1, and the remaining 10 light-duty delivery trucks would be LHD2. This assumes that most of the light-duty delivery truck trips would be the highest-emitting vehicle type of the known options, providing a conservative estimate of emissions.

- Three (3) diesel forklifts were added to the modeling

The proposed project's maximum daily unmitigated operational emissions are shown in Table 4, Unmitigated Maximum Daily Regional Operational Emissions. Please refer to Attachment 02 for CalEEMod output files and detailed construction emissions assumptions.

Table 4: **Unmitigated Maximum Daily Regional Operational Emissions**

Emissions Source	**Maximum Daily Pollutant Emission (Pounds Per Day)(A)**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	0.8	<0.1	1.1	<0.1	<0.1	<0.1
Energy Demand	<0.1	0.2	0.2	<0.1	<0.1	<0.1
Mobile Sources	1.5	15.5	13.4	0.2	9.7	2.8
Off-Road	0.2	1.8	3.1	<0.1	0.1	0.1
Total Daily Emissions(B)	2.5	17.5	15.0	0.2	9.7	2.9
South Coast AQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: MIG, 2026 (See Attachment 02) and South Coast AQMD, 2023.

(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. Maximum daily ROG, CO, SO_2 emissions occur during the summer. Maximum daily NO_X emissions occur during the winter. In general, due to rounding, there is no difference between summer and winter PM_{10} and $PM_{2.5}$ emissions levels for the purposes of this table.

(B) Totals may not equal due to rounding.

As shown in Table 4, the proposed project's maximum daily, unmitigated operational criteria air pollutant emissions would be well below the South Coast AQMD's-recommended regional pollutant thresholds. Project operation, therefore, would not generate criteria air pollutant emissions levels that exceed South Coast AQMD regional CEQA thresholds.

Localized Construction and Operational Emissions

In addition to regional CEQA thresholds, the South Coast AQMD has also developed Local Significance Thresholds (LSTs) that represent the maximum emissions from a project that are expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, which would result in significant adverse localized air quality impacts.

The project's maximum daily construction emissions are compared against the South Coast AQMD's-recommended LSTs thresholds in Table 5, *Local Significance Threshold (LST) Construction Analysis* and the project's maximum daily operational emissions are compared against the South Coast AQMD's-recommended LSTs in Table 6, *Local Significance Threshold Operational Analysis*. Consistent with the South Coast AQMD's LST methodology, the emissions included in the construction and operational LST analysis are on-site emissions only. The LST thresholds are for source receptor area (SRA) 24 (Perris Valley), the SRA in which the proposed project is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance thresholds recommended for use by the South Coast AQMD, and a project size of 5 acres.

Table 5: **Local Significance Threshold Construction Analysis**				
Construction Phase[A]	**Maximum Pollutant Emissions (Pounds Per Day)**			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation (2027)	28.0	28.3	8.8	5.0
Grading (2027)	14.4	19.5	3.8	2.0
Building Construction (2027)	9.4	12.9	0.3	0.3
Paving (2027)	6.9	10.0	0.3	0.3
Paving (2028)	6.6	9.9	0.3	0.2
Architectural Coating (2028)	0.8	1.1	<0.1	<0.1
South Coast AQMD LST[B]	**270**	**1,577**	**13**	**8**
Exceeds Threshold?	***No***	***No***	***No***	***No***

Source: MIG, 2026 (See Attachment 02 and South Coast AQMD, 2009.

(A) Emissions presented are worst-case emissions and may reflect summer or winter emission levels. In general, there is no difference between summer and winter emission levels for the purposes of this table.

(B) The LST thresholds are based on 5-acre project size and 25-meter receptor distance for SRA 24.

Table 6: **Local Significance Threshold Operational Analysis**				
Emissions	**Maximum On-Site Pollutant Emissions (Pounds Per Day)** [A]			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	<0.1	1.1	<0.1	<0.1
Energy Sources	0.2	0.2	<0.1	<0.1
Mobile Sources[B]	1.5	1.2	1.0	0.3
Off-Road Sources	1.8	3.1	0.1	0.1
Total On-site Emissions[C]	3.5	4.5	1.1	0.4
South Coast AQMD LST[D]	**270**	**1,577**	**4**	**2**
Threshold Exceeded?	***No***	***No***	***No***	***No***

Source: MIG, 2026 (see Attachment 02) and South Coast AQMD, 2009.

(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table.

(B) Mobile source emissions estimates reflect potential on-site vehicle emissions only and were derived by assuming 10% of operational mobile source emissions in Table 4 will occur on site.

(C) Totals may not equal due to rounding.

(D) LST threshold values are based on a 5-acre project size and 25-meter (82-foot) receptor distance for SRA 24.

As shown in Table 5 and Table 6, the proposed project's on-site construction and operational emissions would not exceed the South Coast AQMD's recommended LSTs. Project construction and operation, therefore, would not generate criteria air pollutant emissions levels that exceed South Coast AQMD local CEQA thresholds.

Sensitive Air Quality Receptors/Health Risks

The South Coast AQMD identifies sensitive receptors as populations more susceptible to the effects of air pollution than the general population. Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general

population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the South Coast AQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (South Coast AQMD 2005; CARB 2005). The potential sensitive air quality receptors adjacent or in close proximity to the perimeter of the Project area (i.e., within 1,000 feet) include:

- A single-family residence that borders the project site at its southeastern corner, in the City of Perris
- Single-family residential uses that border the project site to the west, in the City of Menifee
- Single-family residential uses across Sherman Road, approximately 75 feet east of the project site, in the City of Menifee
- Single-family residential uses across SR-74, approximately 770 feet northeast of the project site, in the City of Menifee
- Single-family residential uses south of Ethanac Road, approximately 990 feet southeast of the project site, in the City of Menifee

There are no schools within the vicinity of the project site, as the closest, Romoland Elementary School, is approximately 2,700 feet west of the project site.

In addition to criteria air pollutants, the EPA and CARB have classified certain pollutants as Hazardous Air Pollutants (HAPs) (by EPA) or Toxic Air Contaminants (TACs) (by CARB), respectively. These pollutants can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer). People exposed to HAPs/TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems.

A portion of the PM_{10} and $PM_{2.5}$ emissions generated during construction of the project would be diesel particulate matter, or DPM, a known TAC. The proposed project's construction and operational activities would not expose adjacent residential receptors to substantial levels of DPM that would pose a substantial adverse health risk. Potential long-term adverse health risks from DPM are evaluated assuming a constant exposure to emissions over a 70-year lifetime, 24 hours a day, seven days a week, with increased risks generally associated with increased proximity to emissions sources. Since construction activities would only generate DPM emissions on an intermittent, short-term basis (lasting approximately 14 months), DPM emissions from construction activities would be unlikely to result in adverse health effects to existing sensitive receptors that exceed the South Coast AQMD's significance criteria.[3] Additionally, operational activities would occur for a maximum of approximately 11 hours each day, five days a week. Operations would include a total of approximately 3 forklifts and 24 trucks (12 delivery trucks, 6 equipment transport trucks, and 6 concrete pump trucks). The equipment transport trucks and concrete pump trucks would leave the site at the start of the day and return in the afternoon and evening, respectively (PM Design Group, Inc. 2024). The delivery trucks would also leave the project site to make deliveries. The majority of truck operations would

[3] The South Coast AQMD (2019) has established the following thresholds of significance for projects that generate TAC emissions: Maximum Incremental Cancer Risk ≥ 10 in 1 million; Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million); Chronic & Acute Hazard Index ≥ 1.0 (project increment).

therefore occur offsite, away from the adjacent sensitive receptors. Furthermore, the onsite truck activity that would occur would not expose receptors to substantial levels of DPM. Concrete pump trucks would not mix concrete on site (PM Design Group, Inc. 2024), and heavy-duty diesel trucks would not idle for more than five minutes, consistent with CARB's airborne toxic control measures.

Conflict with or Obstruct Implementation of the Applicable Air Quality Plan

A project that conflicts with or obstructs the implementation of the South Coast Air Quality Management District's (South Coast AQMD) South Coast Air Basin 2022 Air Quality Management Plan (AQMP) could hinder implementation of the AQMP, delay efforts to meet attainment deadlines, and/or interfere with South Coast AQMD efforts to maintain compliance with, and attainment of, applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the South Coast AQMD *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if the project (South Coast AQMD, 1993):

1) Is consistent with the growth assumptions in the AQMP; and
2) Does not increase the frequency or severity of an air quality standards violation or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2022 AQMP. The 2022 AQMP was developed to achieve attainment for all criteria air pollutants within the South Coast Air Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. The proposed project would not generate residential development. It would employe approximately 35 employees, well within the SCAG 2020 RTP/SCS, Connect SoCal 2020, growth projections for the City of Perris.[4] Therefore, the proposed project would not exceed the growth assumptions contained in the AQMP.

Consistency Criterion 2 refers to the national and California ambient air quality standards. In developing its CEQA significance thresholds, the South Coast AQMD considered the emission levels at which an individual project's emissions would be cumulatively considerable (South Coast AQMD, 2003; page D-3). As shown in Table 3 and Table 4, the proposed project would not generate construction or operational emissions in excess of South Coast AQMD criteria air pollutant thresholds. For the reasons described above, the proposed Project would not conflict with the South Coast AQMD 2022 AQMP.

Odors

According to the South Coast AQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed project does not include such sources but would result in the construction of a new contractor yard that could generate odors related to vehicle parking and equipment usage (e.g., oils, lubricants, fuel vapors, sawdust). Vehicle activities, such as truck maneuvering and forklift operations, that have the highest potential to generate these odors are likely to occur at the truck park area, approximately 300 feet from the nearest downwind sensitive receptors along Sherman Avenue, allowing potentially odorous compounds time and space to disperse.

4 The Connect SoCal 2020 accounted for 10,300 new jobs being formed in the city between 2016 and 2045 (SCAG 2020). In April 2024, SCAG adopted Connect SoCal 2024, its latest RTP/SCS. Connect SoCal 2024 identifies that employment in Perris will increase by 11,300 between 2019 and 2050 (SCAG 2024).

These activities would not generate sustained odors that would affect substantial numbers of people.

GHG ANALYSIS

Gases that absorb and emit infrared thermal radiation (heat) in the atmosphere and affect regulation of the Earth's temperature are known as greenhouse gases (GHGs). There are many compounds present in the Earth's atmosphere which are GHGs, including but not limited to water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). GHGs allow solar radiation (sunlight) to enter the atmosphere freely. When solar radiation strikes the earth's surface, it is either absorbed by the atmosphere, land, and ocean surface, or reflected back toward space. The land and ocean surface that has absorbed solar radiation warms up and emits infrared radiation toward space. GHGs absorb some of this infrared radiation and "trap" the energy in the earth's atmosphere. Entrapment of too much infrared radiation produces an effect commonly referred to as the "greenhouse effect." Human activities since the beginning of the Industrial Revolution (approximately 1750) have increased atmospheric GHG concentrations. Average global surface temperatures have risen as a result of GHG emissions. This increase in globally averaged surface temperatures is commonly referred to as "Global Warming," although the term "Global Climate Change" is preferred because effects associated with increased GHG concentrations are not just limited to higher global temperatures.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs – carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride – and two groups of gases – hydrofluorocarbons and perfluorocarbons. These GHG are the primary GHG emitted into the atmosphere by human activities. The six most common GHG's are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and the corresponding effects of global climate change (e.g., rising temperatures, increased severe weather events such as drought and flooding). GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHGs by their GWP determines their carbon dioxide equivalent (CO_2e), which enables a project's combined global warming potential to be expressed in terms of mass CO_2 emissions (referred to as CO_2 equivalents, or CO_2e).

The SCAQMD has been evaluating GHG significance thresholds since April 2008. On December 5, 2008, the SCAQMD Governing Board adopted an interim CEQA GHG significance threshold of 10,000 MTCO2e per year for stationary source/industrial projects for which the SCAQMD is the lead agency. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses:

- Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:
    - 10,000 MTCO2e per year for all industrial projects.

  - Option 1: 3,500 $MTCO_2e$ per year for residential projects; 1,400 $MTCO_2e$ per year for commercial projects; 3,000 $MTCO_2e$ per year for mixed-use projects.
  - Option 2: 3,000 $MTCO_2e$ per year for all non-industrial land use types
- Tier 4 has three options for projects that exceed the screening values identified in Tier 3:
  - Option 1: Reduce emissions from business-as-usual by a certain percentage (currently undefined); or
  - Option 2: Early implementation of applicable AB 32 Scoping Measures; or
  - Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 $MTCO_2e$/year/service population by 2020 and 4.1 $MTCO_2e$/year/service population by 2035. For project-level analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 $MTCO_2e$/year/service population for the 2020 and 2035 calendar years, respectively.

The tiered approaches to evaluating GHG emissions 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 only update to the SCAQMD's GHG thresholds since 2010 is that the 10,000 MTCO2e per year threshold for industrial projects is now included in the SCAQMD's CEQA thresholds of significance document that is published for use by local agencies (SCAQMD 2023).

This analysis uses the South Coast AQMD's 10,000 MTCO2e per year GHG threshold to evaluate the proposed project's GHG emissions levels.

GHG Emissions and Plan Consistency Analysis

The proposed project would generate GHG emission from both short-term construction and long-term operational activities. Construction activities would generate GHG emissions primarily from equipment fuel combustion as well as worker, vendor, and haul trips to and from the project site during site preparation, grading, building construction, paving, and architectural coating activities. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. The South Coast AQMD recommends amortizing construction GHG emissions over a 30-year period and combining construction emissions with operational emissions estimates. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. Once operational, the proposed project would generate GHG emissions from area, energy mobile, water/wastewater, and solid waste sources.

The proposed project's construction and operational emissions were estimated CalEEMod, Version 2022.1, using the same default assumptions and project specific variables applied to the air quality emissions estimates. The proposed project's total GHG emissions are shown in Table 7, Project Greenhouse Gas Emissions.

Table 7: **Project Greenhouse Gas Emissions**	
GHG Emissions Source	**GHG Emissions (Metric Tons Per Year)**
Area	0.5
Energy	132.1
Mobile	1,974.0
Refrigerants	0.5
Solid Waste	8.5
Water	13.1
Off-Road	54.1
Construction(A)	11.2
Total(B)	2,721.1
South Coast AQMD Threshold of Significance	**10,000**
South Coast AQMD Threshold of Significance Exceeded?	***No***

Source: MIG, 2026 (See Attachment 02) and South Coast AQMD, 2010.
(A) Construction emissions value has been averaged over a 30-year assumed project lifetime.
(B) Totals may not equal due to rounding.

As shown in Table 7, the proposed project's potential increase in GHG emissions would be below the South Coast AQMD's recommended GHG emissions thresholds. The proposed project, therefore, would not generate GHG emissions that exceed South Coast AQMD CEQA thresholds.

The proposed project also would not conflict with CARB's 2022 Scoping Plan or the Southern California Association of Governments (SCAG) 2024 RTP/SCS, Connect SoCal 2024. Nearly all the specific measures identified in the 2022 Climate Change Scoping Plan would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. Although most of these measures would be implemented at the State level, the GHG reductions achieved by these state measures would be realized at the local level. For example, regardless of actions taken by the City of Perris or Riverside County, emissions generated through gasoline combustion in motor vehicles within the county would produce less GHG in 2030 than they do now. Similarly, the electricity consumed by on-site sources (e.g., lighting, building systems, etc.) would become greener over time as the State's Renewable Portfolio Standard (RPS) increases, consistent with the benchmarks established in SB 100 and SB 1020. The proposed project, therefore, would not directly conflict with any of the specific measures identified in the 2022 Climate Change Scoping Plan. Additionally, the project would not conflict with SCAG's Connect SoCal 2024. The project would have a less than significant VMT impact (Ganddini 2024), would be located within 500 feet of a bus stop, and would include EV infrastructure consistent with the 2025 CalGreen Code.

The City of Perris has implemented a CAP to address GHG emissions related to transportation, commercial and industrial energy, residential energy, waste, and wastewater. The Perris CAP builds off of the Western Riverside Council of Governments CAP, which the City participated in. The Perris CAP evaluates current GHG emissions, forecasts "business-as-usual" emissions, introduces greenhouse gas reduction measures at the state, regional, and local level, and establishes targets of a 15% reduction in GHG emissions below 2010 levels by 2020 and a 47.5% reduction in GHG emissions below 2010 levels by 2035. By implementing all GHG

reduction measures, the CAP estimates it will reduce GHG emissions by 49% below 2010 levels by 2035, which would meet its target. The proposed Project would:

- Be consistent with CAP growth projections[5]
- Be subject to the latest State standards, which exceed the requirements of State and Regional measures in the CAP that were designed to achieve emissions targets (e.g.: SR-1: Renewable Portfolio Standard, SR-2: 2013 California Building Energy Efficiency Standards, Measure SR-6: Pavley and Low Carbon Fuel Standard, and SR-13: Construction & Demolition Waste Diversion)
- Provide electric vehicle charging infrastructure (consistent with the 2025 CALGreen Code and CAP Measure SR-12)

As described above, the proposed project would not result in significant GHG emissions nor conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

ENERGY ANALYSIS

The proposed project consists of the construction of a commercial contractor yard. Construction activities associated with the proposed project would require the use of heavy-duty, off-road equipment and construction-related vehicle trips that would combust fuel, primarily diesel and gasoline. Heavy-duty construction equipment would be required to comply with CARB's airborne toxic control measures, which restrict heavy-duty diesel vehicle idling to five minutes. It is estimated that construction activities would consume approximately 27,581 gallons of diesel fuel to power on-site, off-road heavy-duty construction equipment. Worker, vendor, and haul truck trips during construction activities are anticipated to consume approximately 4,273 gallons of gasoline, 2,420 gallons of diesel, and 987 kilowatt-hours (kWh) of electricity.

Once operational, the proposed project would consume energy for vehicle trips, yard equipment, and building operations. As estimated using CalEEMod and EMFAC, the proposed project would consume approximately 628 megawatt-hours (mWh) per year, 862 million British thermal units (BTU) of natural gas, 100,043 gallons of diesel and 80,527 gallons of gasoline (combined building and mobile sources) (see Attachment 03).

Electricity and natural gas fuel consumption are energy sources necessary to operate and maintain the proposed project in a safe manner. Lighting is essential for safety and security and natural gas consumption is needed for water heating and other temperature-controlled activities. Due to energy efficiency standards being improved over time, the new structures would be more efficient in its energy consumption than the existing structures.

The City of Perris CAP contains the Community Energy Action Plan (CEAP). The project would comply with the State Energy Reduction Measures included in the CEAP which would be implemented at the state level (e.g.: R1-E1: Renewable Portfolio Standard, R1-E2 and R1-E3: Assembly Bill 1109 Energy Efficiency Standards for Lighting). The proposed project would also comply with the CEAP's local energy reduction measures, described below.

- R2-E2: New Commercial Energy Efficiency. The CEAP assumes new development will increase energy efficiency by an average of 10% beyond 2008 Title 24 standards and will decrease natural gas and electricity usage by 25%. Recommended options for achieving energy efficiency include installing Energy Star or equivalent appliances,

[5] The Perris CAP projects that there will be 14,406 new jobs between 2010 and 2035. The proposed Project is anticipated to support approximately 35 jobs, which is within the CAP's employment projections.

windows, lighting, and electronics, installing solar water heaters, using natural heating, cooling, lighting, and ventilation, and installing light-colored cool pavements. By complying with the 2025 CALGreen Code, the proposed project would increase energy efficiency beyond the 2008 standards and would be consistent with Measure R2-E4.

- R2-E4: Commercial Renewable Energy Requirements. The proposed project would be solar-ready, consistent with the 2025 CALGreen Code and Measure R2-E4.

As discussed above, the proposed project would be built to the latest CALGreen Code and would not conflict with or obstruct a state or local plan for renewable energy. For these reasons, the proposed project would not result in the wasteful, inefficient, or unnecessary use of energy resources.

CONCLUSION

As described in this memo, the proposed Project would not exceed any applicable South Coast AQMD-recommended CEQA thresholds of significance and is consistent with all applicable air quality, GHG, and energy plans, policies and regulations adopted for the purposes of reducing air quality impacts, GHG emissions, and/or energy consumption impacts. The proposed project, therefore, would not result in substantial adverse air quality, GHG, or energy-related effects on the environment.

REFERENCES

The following references were used to prepare this memorandum:

CARB 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. https://ww2.arb.ca.gov/sites/default/files/2023-05/Land%20Use%20Handbook_0.pdf

Ganddini 2026a. Air Quality, Greenhouse Gas, and Energy Analysis for the Green Bee Contractor Yard Project in Perris, CA September 11, 2026.

_____2026b. PM Design Group Green Bee Contractor Yard (PLN24-05264) Vehicle Miles Traveled Screening Assessment Project No. 19760. May 27, 2026.

MIG, Inc. (MIG) 2026. Noise and Vibration Analysis for the Green Bee Concrete Contractor Yard Project in Perris, CA. October 2026.

Occupational Safety and Health Administration (OSHA) 2023. Wood Dust. June 23, 2023. <https://www.osha.gov/chemicaldata/798 >

PM Design Group, Inc. Report. GBC24001.0 – PR24-05118 – Green Bee Concrete. September 19, 2024.

South Coast Air Quality Management District (South Coast AQMD) 1993. Air Quality Analysis Handbook. Diamond Bar, CA. 1993. Available online at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>

_____2005. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. Chapter 2: Air Quality Issues Regarding Land Use. May 6, 2005. https://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf

_____2009. *Mass Rate LST Lookup Table*. Diamond Bar, CA. October 2009. Available online at: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>

_____2010. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. Diamond Bar, CA. September 28, 2010. Available online at: <

http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf>

_____2018. *National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin.* Diamond Bar, CA. September 2018. Available online at: <http://www.aqmd.gov/home/air-quality/clean-air-plans>

_____2021. Second Draft Staff Report Proposed Rule 2305 – Warehouse Indirect Source Rule - Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305. April 2021. https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr-2305_sr_2nd-draft_4-7-21_clean.pdf?sfvrsn=8

_____2022. *South Coast Air Quality Management District 2022 Air Quality Management Plan*. December 2, 2022. Available online at: http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan

_____2023. *South Coast AQMD Air Quality Significance Thresholds.* Diamond Bar, CA. March 2023. Available online at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25

Southern California Association of Governments (SCAG) 2020. Current Context Demographics and Growth Forecast Technical Report. September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579

_____2024. Connect SoCal 2024. “Demographics & Growth Forecast Technical Report.” Adopted April 4, 2024. https://scag.ca.gov/sites/main/files/file-attachments/23-2987-tr-demographics-growth-forecast-final-040424.pdf?1712261839

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Attachment 1

Site Plan

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CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 7 DAYS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

PROPERTY DESCRIPTION (PER TITLE COMMITMENT POLICY NO. 24-106676)

ALL THAT CERTAIN REAL PROPERTY IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1:

LOT 739 OF ROMOLA FARMS NO. 6–A. IN THE CITY PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 14 PAGES 63, 64 AND 65 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

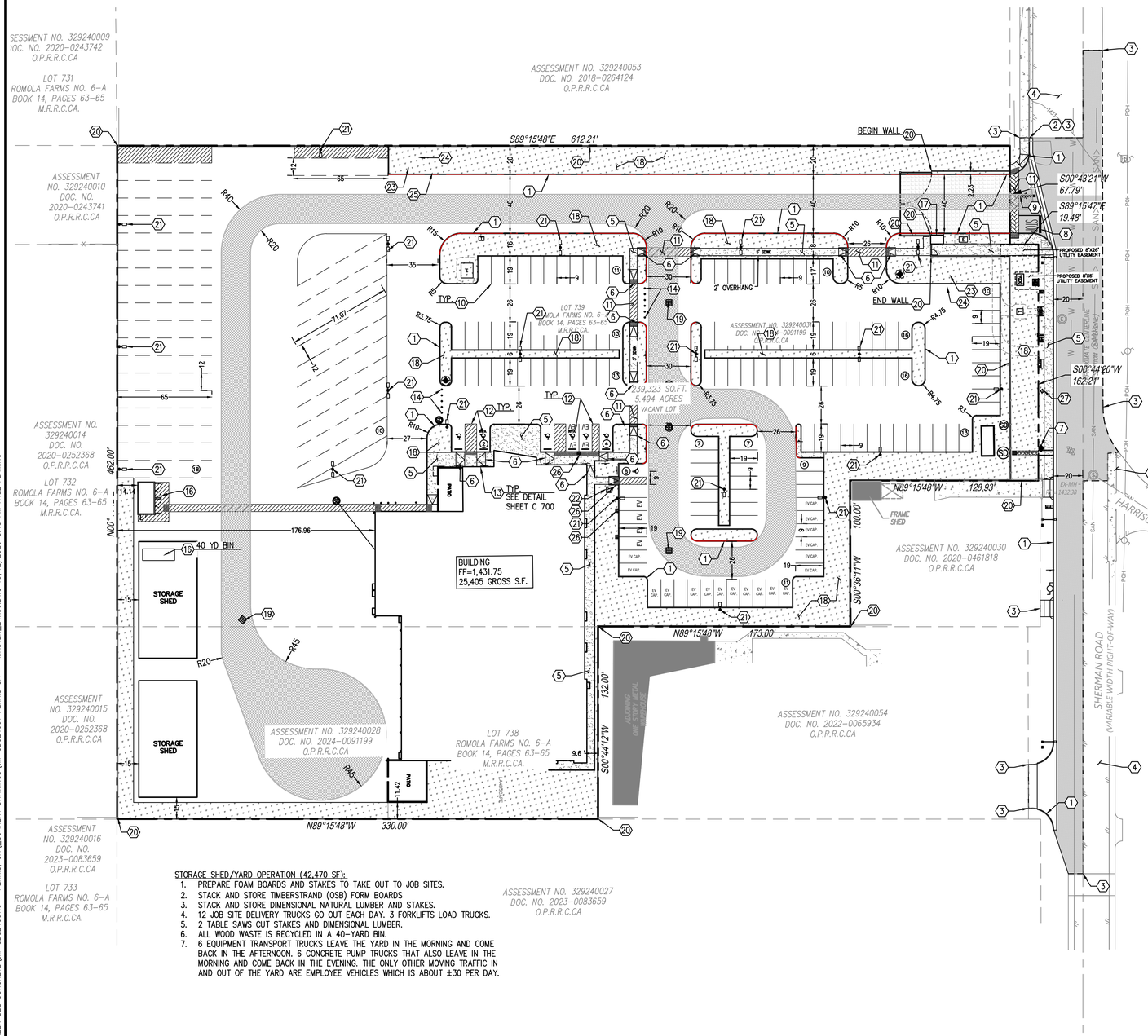
EXCEPTING THEREFROM THAT PORTION DESCRIBED AS FOLLOWS: .

BEGINNING AT THE SOUTHEAST CORNER: AND
THENCE NORTHERLY 100 FEET;
THENCE WESTERLY 130 FEET;
THENCE SOUTHERLY 100 FEET;
THENCE EAST 130 FEET TO THE POINT OF BEGINNING.

PARCEL 2:

THE WEST ONE ACRE OF THE NORTHERLY RECTANGULAR 132 FEET OF LOT 738 OF ROMOLA FARMS NO. 6–A, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 14 PAGES 63, 64 AND 66 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

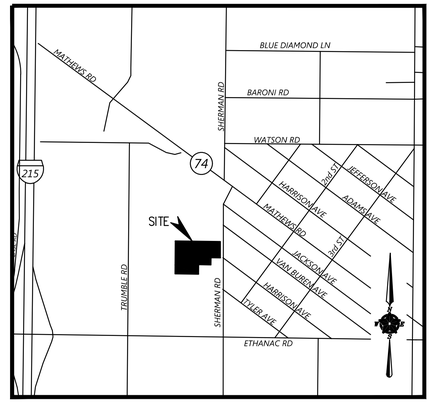
APN(S): 329–240–031, 329–240–028



STORAGE SHED/YARD OPERATION (42,470 SF):

1. PREPARE FOAM BOARDS AND STAKES TO TAKE OUT TO JOB SITES.
2. STACK AND STORE TIMBERSTRAND (OSB) FORM BOARDS
3. STACK AND STORE DIMENSIONAL NATURAL LUMBER AND STAKES.
4. 12 JOB SITE DELIVERY TRUCKS GO OUT EACH DAY. 3 FORKLIFTS LOAD TRUCKS.
5. 2 TABLE SAWS CUT STAKES AND DIMENSIONAL LUMBER.
6. ALL WOOD WASTE IS RECYCLED IN A 40–YARD BIN.
7. 6 EQUIPMENT TRANSPORT TRUCKS LEAVE THE YARD IN THE MORNING AND COME BACK IN THE AFTERNOON. 6 CONCRETE PUMP TRUCKS THAT ALSO LEAVE IN THE MORNING AND COME BACK IN THE EVENING. THE ONLY OTHER MOVING TRAFFIC IN AND OUT OF THE YARD ARE EMPLOYEE VEHICLES WHICH IS ABOUT ±30 PER DAY.

GRAPHIC SCALE
40 0 20 40
(IN FEET)
1 inch = 40 ft.



LOCATION MAP
NOT TO SCALE

SITE DATA TABLE

LOCATION:	SHERMAN RD & TYLER AVE AVE. PERRIS, CA 92585	
LOT AREA:	5.49 AC. (239,323 S.F.)	
ZONING:	LI–LIGHT INDUSTRIAL	
CURRENT USE:	VACANT	
PROPOSED USE:	TRUCK YARD AND OFFICE	
BUILDING DATA:		
BUILDING AREA	25,405 S.F.	
BUILDING HEIGHT	28 FT.	
BUILDING COVERAGE	10.61%	
F.A.R.	10.6:1	
PARKING SUMMARY:	**REQUIRED**	**PROVIDED**
PROFESSIONAL OFFICES: 14,265 SF	48	–
STORAGE YARD: 17,540 SF	18	–
TOTAL PER USE PARKING SPACES	66	150
TOTAL EV PARKING SPACES	15	24
TOTAL EVCS INSTALLED CHARGERS	6	6
TOTAL ACCESSIBLE EVCS INSTALLED CHARGERS	2	2
ACCESSIBLE SPACES	5	5
TRUCK SPACES	–	29
TOTAL SPACES	66	179
PERVIOUS:	40,430 S.F.	
IMPERVIOUS:	198,893 S.F.	

SITE LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- FIRE LANE PAINTED CURB FACE
- PARKING COUNT
- FIRELANE
- ACCESSIBLE SPACES
- ADA RAMP
- BOLLARD
- TRAFFIC SIGN
- BOLLARD MOUNTED ACCESSIBLE SIGN
- STOP BAR
- STAMPED CONCRETE
- TRUNCATED DOME
- FIRE LANE
- DECORATIVE CONCRETE FOR ENRANCE
- LIGHT POLE
- AREA DRAIN
- GREASE TRAP
- CLEAN–OUT
- DOUBLE CLEAN–OUT
- GAS METER
- WATER METER
- IRRIGATION METER
- MANHOLE
- CURB INLET

SITE KEY NOTES:

1. CONCRETE CURB AND GUTTER. (PER LOCAL CODES)
2. TAPER CURB TO MATCH EXISTING.
3. MATCH EXISTING PAVEMENT ELEVATION.
4. EXISTING PAVEMENT TO REMAIN.
5. CONCRETE SIDEWALK. 2% MAX. CROSS SLOPE AND 5% MAX. STRAIGHT SLOPE. (PER LOCAL CODES)
6. SIDEWALK RAMP @ 8.33% MAX. (PER LOCAL CODES)
7. EXISTING FIRE HYDRANT.
8. STOP BAR. (PER LOCAL CODES)
9. DIRECTIONAL TRAFFIC ARROW. (PER LOCAL CODES)
10. PARKING STALL STRIPING. (PER LOCAL CODES)
11. PEDESTRIAN/ACCESSIBLE CROSSWALK WITH PAVERS.
12. ACCESSIBLE STRIPING & SYMBOL. (TYPICAL–PER ADA AND LOCAL REQUIREMENTS)
13. ACCESSIBLE SIGNS. (TYPICAL–PER ADA AND LOCAL REQUIREMENTS)
14. BOLLARD (TBD).
15. MONUMENT/PYLON SIGN. (TBD).
16. COVERED DUMPSTER ENCLOSURE. (PER ARCH. PLANS)
17. GUARD SHACK
18. LANDSCAPE AREA. (PER LANDSCAPE PLAN)
19. STORM INLET
20. MASONRY WALL
21. LIGHT POLE
22. CONCRETE PAD FOR ELECTRICAL EQUIPMENT
23. ELECTRIC TRANSFORMER PAD
24. ELECTRICAL EQUIPMENT CLEARANCE AREA
25. TELCO PULL BOX
26. EV CHARGING STATION
27. FDC FIRE CONNECT.

ENGINEER:
JM CIVIL ENGINEERING
JOHN MEASELS, P.E.
1101 CENTRAL EXPY S., SUITE 215
ALLEN, TX 75013
JMEASELS@JMCIVILENG.COM
(214) 491–1830

SURVEYOR:
JM SURVEY
SCOTT BERGHERR, RPLS
1101 CENTRAL EXPY S., SUITE 215
ALLEN, TX 75013
SBERGHERR@JMCIVILENG.COM
(214) 705–3174

811 Know what's below. Call before you dig.

JM CIVIL
38 Executive Park
Suite 310
Irvine, CA 92614
Ph. 760-538-3388
Kyle Flaming, PE
CIVIL ENGINEER

FOR REVIEW ONLY. THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW ONLY UNDER THE AUTHORITY OF KYLE FLAMING, P.E. (LIC. NO. 76432). IT IS NOT TO BE USED FOR CONSTRUCTION.

SITE PLAN

GREEN BEE CONCRETE
25775 SHERMAN RD.
PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	02/27/25	INITIAL SUBMITTAL	TA
	06/09/25	CD SUBMITTAL	CK
	12/16/25	FIRE COMMENTS	JM

PROJECT NO: JM–GBC24001.0
DRAWN BY: AB, ML, MA, CK
CHECKED BY: JK
ISSUE DATE: 04/17/2026

C 100

J:\GREEN BEE CONCRETE\JM–GBC24001.0 – PERRIS, CA_CURRENT DRAWINGS\JM–GBC24001 PERRIS CA – MASTER_24X36.DWG 10/12/2026 8:15 AM KYLE FLAMING

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Attachment 2

CalEEMOD Project File Outputs

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Green Bee Contractor Yard Detailed Report

Table of Contents

1. Basic Project Information
   1.1. Basic Project Information
   1.2. Land Use Types
   1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
   2.1. Construction Emissions Compared Against Thresholds
   2.2. Construction Emissions by Year
      2.2.1. Total Construction Emissions by Year, Unmitigated
      2.2.2. Onsite Construction Emissions by Year, Unmitigated
      2.2.3. Offsite Construction Emissions by Year, Unmitigated
   2.3. Operations Emissions Compared Against Thresholds
   2.4. Operations Emissions by Sector, Unmitigated
3. Construction Emissions Details
   3.1. Site Preparation (2027)
      3.1.1. Onsite - Unmitigated
      3.1.2. Offsite - Unmitigated
   3.2. Grading (2027)
      3.2.1. Onsite - Unmitigated

3.2.2. Offsite - Unmitigated
3.3. Building Construction (2027)
3.3.1. Onsite - Unmitigated
3.3.2. Offsite - Unmitigated
3.4. Paving (2027)
3.4.1. Onsite - Unmitigated
3.4.2. Offsite - Unmitigated
3.5. Paving (2028)
3.5.1. Onsite - Unmitigated
3.5.2. Offsite - Unmitigated
3.6. Architectural Coating (2028)
3.6.1. Onsite - Unmitigated
3.6.2. Offsite - Unmitigated
4. Operations Emissions Details
4.1. Mobile Emissions by Land Use
4.1.1. Unmitigated
4.2. Energy
4.2.1. Electricity Emissions By Land Use - Unmitigated
4.2.3. Natural Gas Emissions By Land Use - Unmitigated
4.3. Area Emissions by Source
4.3.1. Unmitigated
4.4. Water Emissions by Land Use

4.4.1. Unmitigated
4.5. Waste Emissions by Land Use
4.5.1. Unmitigated
4.6. Refrigerant Emissions by Land Use
4.6.1. Unmitigated
4.7. Offroad Emissions By Equipment Type
4.7.1. Unmitigated
4.8. Stationary Emissions By Equipment Type
4.8.1. Unmitigated
4.9. User Defined Emissions By Equipment Type
4.9.1. Unmitigated
4.10. Soil Carbon Accumulation By Vegetation Type
4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated
4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated
4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated
5. Activity Data
5.1. Construction Schedule
5.2. Off-Road Equipment
5.2.1. Unmitigated
5.3. Construction Vehicles
5.3.1. Unmitigated
5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies
5.5. Architectural Coatings
5.6. Dust Mitigation
5.6.1. Construction Earthmoving Activities
5.6.2. Construction Earthmoving Control Strategies
5.7. Construction Paving
5.8. Construction Electricity Consumption and Emissions Factors
5.9. Operational Mobile Sources
5.9.1. Unmitigated
5.10. Operational Area Sources
5.10.1. Hearths
5.10.2. Architectural Coatings
5.10.3. Landscape Equipment
5.11. Operational Energy Consumption
5.11.1. Unmitigated
5.12. Operational Water and Wastewater Consumption
5.12.1. Unmitigated
5.13. Operational Waste Generation
5.13.1. Unmitigated
5.14. Operational Refrigeration and Air Conditioning Equipment
5.14.1. Unmitigated
5.15. Operational Off-Road Equipment

5.15.1. Unmitigated
5.16. Stationary Sources
5.16.1. Emergency Generators and Fire Pumps
5.16.2. Process Boilers
5.17. User Defined
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
6. Climate Risk Detailed Report
6.1. Climate Risk Summary
6.2. Initial Climate Risk Scores
6.3. Adjusted Climate Risk Scores
6.4. Climate Risk Reduction Measures
7. Health and Equity Details
7.1. CalEnviroScreen 4.0 Scores
7.2. Healthy Places Index Scores
7.3. Overall Health & Equity Scores
7.4. Health & Equity Measures

7.5. Evaluation Scorecard
7.6. Health & Equity Custom Measures
8. User Changes to Default Data
8.1. Justifications
8.4. Construction
8.4.1. Construction Phases
8.4.2. Off-Road Equipment
8.5. Operations
8.5.1. Mobile Sources
8.5.1.1. Vehicle Data
8.5.1.2. Fleet Mix

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Green Bee Contractor Yard
Construction Start Date	1/1/2027
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	0.20000
Location	33.74612473120362, -117.18185825649255
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5512
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

Data Field	Value
App Version	2022.1.1.46

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
General Light Industry	11.1980	1000sqft	0.25707	11,198.0	0.00000	0.00000	—	Mechanics shop and storage facility
General Office Building	14.2070	1000sqft	0.32615	14,207.0	0.00000	0.00000	—	Office space
Parking Lot	4.90678	Acre	4.90678	0.00000	46,461.0	0.00000	—	—

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.	1.27802	1.06958	9.55175	13.5927	0.02433	0.33845	0.15652	0.49497	0.31152	0.03818	0.34970	—	2,645.32	2,645.32	0.10155	0.04226	0.70226	2,661.16

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.8883	14.8656	28.0411	29.1580	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,515.67	5,515.67	0.21799	0.05128	0.01909	5,536.42
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.01954	0.88760	7.60205	10.4195	0.01841	0.28012	0.50006	0.78018	0.25780	0.21171	0.46951	—	2,011.47	2,011.47	0.07787	0.02997	0.21507	2,022.56
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.18607	0.16199	1.38737	1.90155	0.00336	0.05112	0.09126	0.14238	0.04705	0.03864	0.08569	—	333.022	333.022	0.01289	0.00496	0.03561	334.858
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0000	100.0000	550.000	150.000	—	—	150.000	—	—	55.0000	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0000	100.0000	550.000	150.000	—	—	150.000	—	—	55.0000	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.27802	1.06958	9.55175	13.5927	0.02433	0.33845	0.15652	0.49497	0.31152	0.03818	0.34970	—	2,645.32	2,645.32	0.10155	0.04226	0.70226	2,661.16
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.70681	3.11806	28.0411	29.1580	0.04891	1.17173	7.89497	9.06671	1.07799	3.99357	5.07157	—	5,515.67	5,515.67	0.21799	0.05128	0.01909	5,536.42
2028	14.8883	14.8656	6.68607	10.6123	0.01395	0.25554	0.19606	0.45160	0.23510	0.04596	0.28105	—	1,694.31	1,694.31	0.06394	0.01937	0.01470	1,701.69
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.01954	0.85417	7.60205	10.4195	0.01841	0.28012	0.50006	0.78018	0.25780	0.21171	0.46951	—	2,011.47	2,011.47	0.07787	0.02997	0.21507	2,022.56
2028	0.89580	0.88760	0.39795	0.62898	0.00083	0.01434	0.01168	0.02603	0.01320	0.00274	0.01593	—	98.2154	98.2154	0.00369	0.00113	0.01455	98.6593
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.18607	0.15589	1.38737	1.90155	0.00336	0.05112	0.09126	0.14238	0.04705	0.03864	0.08569	—	333.022	333.022	0.01289	0.00496	0.03561	334.858
2028	0.16348	0.16199	0.07263	0.11479	0.00015	0.00262	0.00213	0.00475	0.00241	0.00050	0.00291	—	16.2607	16.2607	0.00061	0.00019	0.00241	16.3342

2.2.2. Onsite 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
2027	1.23076	1.02988	9.39093	12.9379	0.02340	0.33657	0.00000	0.33657	0.30965	0.00000	0.30965	—	2,397.08	2,397.08	0.09724	0.01945	0.00000	2,405.30
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	7.66623	8.83797	1.07799	3.93995	5.01795	—	5,297.82	5,297.82	0.21490	0.04298	0.00000	5,316.00
2028	14.8814	14.8588	6.62754	9.90989	0.01395	0.25554	0.00000	0.25554	0.23510	0.00000	0.23510	—	1,511.03	1,511.03	0.06129	0.01226	0.00000	1,516.22
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.98533	0.82545	7.48647	10.0163	0.01782	0.27894	0.38405	0.66299	0.25662	0.18358	0.44020	—	1,843.66	1,843.66	0.07479	0.01496	0.00000	1,849.98
2028	0.89247	0.88435	0.39446	0.58489	0.00083	0.01434	0.00000	0.01434	0.01320	0.00000	0.01320	—	87.1552	87.1552	0.00354	0.00071	0.00000	87.4543
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.17982	0.15064	1.36628	1.82798	0.00325	0.05091	0.07009	0.12100	0.04683	0.03350	0.08034	—	305.238	305.238	0.01238	0.00248	0.00000	306.286
2028	0.16288	0.16139	0.07199	0.10674	0.00015	0.00262	0.00000	0.00262	0.00241	0.00000	0.00241	—	14.4295	14.4295	0.00059	0.00012	0.00000	14.4791

2.2.3. Offsite 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.04726	0.03970	0.16082	0.65479	0.00094	0.00187	0.15652	0.15840	0.00187	0.03818	0.04005	—	248.246	248.246	0.00431	0.02282	0.70226	255.856
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07504	0.06636	0.17076	0.87868	0.00094	0.00187	0.22874	0.22874	0.00187	0.05362	0.05362	—	238.287	238.287	0.00442	0.02282	0.01909	245.215

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
2028	0.05622	0.05490	0.05853	0.70239	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	183.276	183.276	0.00265	0.00711	0.01470	185.475
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.03420	0.02872	0.11558	0.40315	0.00059	0.00118	0.11601	0.11719	0.00118	0.02813	0.02931	—	167.813	167.813	0.00308	0.01501	0.21507	172.578
2028	0.00333	0.00325	0.00349	0.04409	0.00000	0.00000	0.01168	0.01168	0.00000	0.00274	0.00274	—	11.0603	11.0603	0.00016	0.00042	0.01455	11.2050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.00624	0.00524	0.02109	0.07358	0.00011	0.00022	0.02117	0.02139	0.00022	0.00513	0.00535	—	27.7834	27.7834	0.00051	0.00248	0.03561	28.5722
2028	0.00061	0.00059	0.00064	0.00805	0.00000	0.00000	0.00213	0.00213	0.00000	0.00050	0.00050	—	1.83115	1.83115	0.00003	0.00007	0.00241	1.85512

2.3. 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.	2.80978	2.48961	16.8258	17.8044	0.16022	0.37568	9.36401	9.73969	0.35689	2.49603	2.85292	24.4050	17,485.2	17,509.6	2.71727	1.94399	85.9296	18,242.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.58381	2.28004	17.4774	15.0057	0.15888	0.37378	9.36401	9.73779	0.35546	2.49603	2.85150	24.4050	17,351.5	17,375.9	2.71792	1.94914	5.10229	18,029.8
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.16860	1.93741	12.7229	11.7167	0.11405	0.27326	6.68784	6.96110	0.25986	1.78270	2.04256	24.4050	12,646.6	12,671.0	2.66785	1.40222	28.5430	13,184.1

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.39577	0.35358	2.32193	2.13829	0.02081	0.04987	1.22053	1.27040	0.04742	0.32534	0.37277	4.04052	2,093.79	2,097.83	0.44169	0.23215	4.72563	2,182.78
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0000	55.0000	550.000	150.000	—	—	150.000	—	—	55.0000	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0000	55.0000	550.000	150.000	—	—	150.000	—	—	55.0000	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.4. 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	1.72306	1.46656	14.8186	13.4086	0.15452	0.28756	9.36401	9.65157	0.27471	2.49603	2.77075	—	16,192.6	16,192.6	0.15666	1.90947	82.9802	16,848.5
Area	0.83797	0.82280	0.00930	1.10491	0.00007	0.00196	—	0.00196	0.00148	—	0.00148	—	4.54360	4.54360	0.00019	0.00004	—	4.55998
Energy	0.02579	0.01290	0.23446	0.19694	0.00141	0.01782	—	0.01782	0.01782	—	0.01782	—	794.018	794.018	0.07378	0.00647	—	797.790
Water	—	—	—	—	—	—	—	—	—	—	—	9.80078	36.7310	46.5318	1.00846	0.02430	—	78.9852

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Waste	—	—	—	—	—	—	—	—	—	—	—	14.6042	0.00000	14.6042	1.45964	0.00000	—	51.0951
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.94944	2.94944
Off-Road	0.22296	0.18735	1.76341	3.09386	0.00422	0.06834	—	0.06834	0.06287	—	0.06287	—	457.320	457.320	0.01855	0.00371	—	458.890
Total	2.80978	2.48961	16.8258	17.8044	0.16022	0.37568	9.36401	9.73969	0.35689	2.49603	2.85292	24.4050	17,485.2	17,509.6	2.71727	1.94399	85.9296	18,242.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.69375	1.43849	15.4796	11.7149	0.15324	0.28762	9.36401	9.65163	0.27477	2.49603	2.77080	—	16,063.4	16,063.4	0.15749	1.91466	2.15285	16,640.1
Area	0.64131	0.64131	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02579	0.01290	0.23446	0.19694	0.00141	0.01782	—	0.01782	0.01782	—	0.01782	—	794.018	794.018	0.07378	0.00647	—	797.790
Water	—	—	—	—	—	—	—	—	—	—	—	9.80078	36.7310	46.5318	1.00846	0.02430	—	78.9852
Waste	—	—	—	—	—	—	—	—	—	—	—	14.6042	0.00000	14.6042	1.45964	0.00000	—	51.0951
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.94944	2.94944
Off-Road	0.22296	0.18735	1.76341	3.09386	0.00422	0.06834	—	0.06834	0.06287	—	0.06287	—	457.320	457.320	0.01855	0.00371	—	458.890
Total	2.58381	2.28004	17.4774	15.0057	0.15888	0.37378	9.36401	9.73779	0.35546	2.49603	2.85150	24.4050	17,351.5	17,375.9	2.71792	1.94914	5.10229	18,029.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.20798	1.02544	11.2259	8.55909	0.10959	0.20542	6.68784	6.89326	0.19624	1.78270	1.97894	—	11,487.0	11,487.0	0.11263	1.36878	25.5936	11,923.3
Area	0.77600	0.76562	0.00637	0.75679	0.00005	0.00134	—	0.00134	0.00102	—	0.00102	—	3.11205	3.11205	0.00013	0.00003	—	3.12327
Energy	0.02579	0.01290	0.23446	0.19694	0.00141	0.01782	—	0.01782	0.01782	—	0.01782	—	794.018	794.018	0.07378	0.00647	—	797.790
Water	—	—	—	—	—	—	—	—	—	—	—	9.80078	36.7310	46.5318	1.00846	0.02430	—	78.9852
Waste	—	—	—	—	—	—	—	—	—	—	—	14.6042	0.00000	14.6042	1.45964	0.00000	—	51.0951

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.94944	2.94944
Off-Road	0.15882	0.13346	1.25613	2.20385	0.00301	0.04868	—	0.04868	0.04479	—	0.04479	—	325.762	325.762	0.01321	0.00264	—	326.880
Total	2.16860	1.93741	12.7229	11.7167	0.11405	0.27326	6.68784	6.96110	0.25986	1.78270	2.04256	24.4050	12,646.6	12,671.0	2.66785	1.40222	28.5430	13,184.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22046	0.18714	2.04874	1.56203	0.02000	0.03749	1.22053	1.25802	0.03581	0.32534	0.36116	—	1,901.80	1,901.80	0.01865	0.22662	4.23731	1,974.04
Area	0.14162	0.13973	0.00116	0.13811	0.00001	0.00025	—	0.00025	0.00019	—	0.00019	—	0.51524	0.51524	0.00002	< 0.000005	—	0.51709
Energy	0.00471	0.00235	0.04279	0.03594	0.00026	0.00325	—	0.00325	0.00325	—	0.00325	—	131.459	131.459	0.01221	0.00107	—	132.083
Water	—	—	—	—	—	—	—	—	—	—	—	1.62263	6.08124	7.70387	0.16696	0.00402	—	13.0769
Waste	—	—	—	—	—	—	—	—	—	—	—	2.41789	0.00000	2.41789	0.24166	0.00000	—	8.45937
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48831	0.48831
Off-Road	0.02899	0.02436	0.22924	0.40220	0.00055	0.00888	—	0.00888	0.00817	—	0.00817	—	53.9337	53.9337	0.00219	0.00044	—	54.1188
Total	0.39577	0.35358	2.32193	2.13829	0.02081	0.04987	1.22053	1.27040	0.04742	0.32534	0.37277	4.04052	2,093.79	2,097.83	0.44169	0.23215	4.72563	2,182.78

3. Construction Emissions Details

3.1. Site Preparation (2027)

3.1.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09950	0.08361	0.76637	0.77478	0.00134	0.03210	—	0.03210	0.02953	—	0.02953	—	145.146	145.146	0.00589	0.00118	—	145.644
Dust From Material Movement	—	—	—	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01816	0.01526	0.13986	0.14140	0.00024	0.00586	—	0.00586	0.00539	—	0.00539	—	24.0305	24.0305	0.00097	0.00019	—	24.1130

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Dust From Material Movement	—	—	—	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07504	0.06636	0.06867	0.87868	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	217.856	217.856	0.00309	0.00829	0.01909	220.424
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00206	0.00182	0.00208	0.02527	0.00000	0.00000	0.00627	0.00627	0.00000	0.00147	0.00147	—	6.04417	6.04417	0.00008	0.00023	0.00870	6.12271
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00033	0.00038	0.00461	0.00000	0.00000	0.00114	0.00114	0.00000	0.00027	0.00027	—	1.00068	1.00068	0.00001	0.00004	0.00144	1.01368

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2. Grading (2027)

3.2.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.95845	1.64564	14.3981	19.5160	0.03119	0.62347	—	0.62347	0.57359	—	0.57359	—	3,377.46	3,377.46	0.13700	0.02740	—	3,389.06
Dust From Material Movement	—	—	—	—	—	—	3.17580	3.17580	—	1.38031	1.38031	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10731	0.09017	0.78894	1.06937	0.00171	0.03416	—	0.03416	0.03143	—	0.03143	—	185.067	185.067	0.00751	0.00150	—	185.702

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Dust From Material Movement	—	—	—	—	—	—	0.17402	0.17402	—	0.07563	0.07563	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01958	0.01646	0.14398	0.19516	0.00031	0.00623	—	0.00623	0.00574	—	0.00574	—	30.6399	30.6399	0.00124	0.00025	—	30.7450
Dust From Material Movement	—	—	—	—	—	—	0.03176	0.03176	—	0.01380	0.01380	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06432	0.05688	0.05886	0.75315	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	186.733	186.733	0.00265	0.00711	0.01636	188.935
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00352	0.00312	0.00356	0.04332	0.00000	0.00000	0.01074	0.01074	0.00000	0.00252	0.00252	—	10.3614	10.3614	0.00014	0.00039	0.01491	10.4961
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00064	0.00057	0.00065	0.00791	0.00000	0.00000	0.00196	0.00196	0.00000	0.00046	0.00046	—	1.71545	1.71545	0.00002	0.00006	0.00247	1.73774
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Building Construction (2027)

3.3.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23076	1.02988	9.39093	12.9379	0.02340	0.33657	—	0.33657	0.30965	—	0.30965	—	2,397.08	2,397.08	0.09724	0.01945	—	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23076	1.02988	9.39093	12.9379	0.02340	0.33657	—	0.33657	0.30965	—	0.30965	—	2,397.08	2,397.08	0.09724	0.01945	—	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77555	0.64896	5.91757	8.15268	0.01474	0.21209	—	0.21209	0.19512	—	0.19512	—	1,510.49	1,510.49	0.06127	0.01225	—	1,515.67
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14154	0.11844	1.07996	1.48786	0.00269	0.03871	—	0.03871	0.03561	—	0.03561	—	250.078	250.078	0.01014	0.00203	—	250.937
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04170	0.03711	0.03212	0.61439	0.00000	0.00000	0.12090	0.12090	0.00000	0.02834	0.02834	—	125.198	125.198	0.00143	0.00438	0.38895	126.929

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Vendor	0.00556	0.00259	0.12870	0.04039	0.00094	0.00187	0.03563	0.03750	0.00187	0.00984	0.01172	—	123.048	123.048	0.00288	0.01843	0.31332	128.927
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03966	0.03507	0.03630	0.46441	0.00000	0.00000	0.12090	0.12090	0.00000	0.02834	0.02834	—	115.145	115.145	0.00163	0.00438	0.01009	116.502
Vendor	0.00547	0.00241	0.13447	0.04158	0.00094	0.00187	0.03563	0.03750	0.00187	0.00984	0.01172	—	123.142	123.142	0.00279	0.01843	0.00814	128.713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02499	0.02210	0.02525	0.30716	0.00000	0.00000	0.07617	0.07617	0.00000	0.01785	0.01785	—	73.4751	73.4751	0.00103	0.00276	0.10572	74.4298
Vendor	0.00351	0.00157	0.08457	0.02586	0.00059	0.00118	0.02245	0.02363	0.00118	0.00620	0.00738	—	77.5622	77.5622	0.00182	0.01162	0.08522	81.1542
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00456	0.00403	0.00461	0.05606	0.00000	0.00000	0.01390	0.01390	0.00000	0.00326	0.00326	—	12.1646	12.1646	0.00017	0.00046	0.01750	12.3227
Vendor	0.00064	0.00029	0.01543	0.00472	0.00011	0.00022	0.00410	0.00431	0.00022	0.00113	0.00135	—	12.8413	12.8413	0.00030	0.00192	0.01411	13.4360
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Paving (2027)

3.4.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87761	0.73744	6.94439	9.95313	0.01395	0.29813	—	0.29813	0.27428	—	0.27428	—	1,511.11	1,511.11	0.06130	0.01226	—	1,516.29
Paving	0.64279	0.64279	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00172	0.00144	0.01359	0.01948	0.00003	0.00058	—	0.00058	0.00054	—	0.00054	—	2.95716	2.95716	0.00012	0.00002	—	2.96730
Paving	0.00126	0.00126	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00031	0.00026	0.00248	0.00355	< 0.000005	0.00011	—	0.00011	0.00010	—	0.00010	—	0.48959	0.48959	0.00002	< 0.000005	—	0.49127
Paving	0.00023	0.00023	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06432	0.05688	0.05886	0.75315	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	186.733	186.733	0.00265	0.00711	0.01636	188.935
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00013	0.00011	0.00013	0.00155	0.00000	0.00000	0.00038	0.00038	0.00000	0.00009	0.00009	—	0.37005	0.37005	0.00001	0.00001	0.00053	0.37486
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00002	0.00002	0.00002	0.00028	0.00000	0.00000	0.00007	0.00007	0.00000	0.00002	0.00002	—	0.06127	0.06127	< 0.000005	< 0.000005	0.00009	0.06206
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Paving (2028)

3.5.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81550	0.68524	6.62754	9.90989	0.01395	0.25554	—	0.25554	0.23510	—	0.23510	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.22
Paving	0.64279	0.64279	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04309	0.03621	0.35018	0.52361	0.00074	0.01350	—	0.01350	0.01242	—	0.01242	—	79.8392	79.8392	0.00324	0.00065	—	80.1132
Paving	0.03396	0.03396	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00786	0.00661	0.06391	0.09556	0.00013	0.00246	—	0.00246	0.00227	—	0.00227	—	13.2183	13.2183	0.00054	0.00011	—	13.2636
Paving	0.00620	0.00620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05622	0.05490	0.05853	0.70239	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	183.276	183.276	0.00265	0.00711	0.01470	185.475
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00295	0.00288	0.00309	0.03909	0.00000	0.00000	0.01036	0.01036	0.00000	0.00243	0.00243	—	9.80612	9.80612	0.00014	0.00038	0.01290	9.93446
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00054	0.00053	0.00056	0.00713	0.00000	0.00000	0.00189	0.00189	0.00000	0.00044	0.00044	—	1.62352	1.62352	0.00002	0.00006	0.00214	1.64476
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Architectural Coating (2028)

3.6.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	14.7515	14.7515	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00711	0.00588	0.04428	0.06128	0.00009	0.00084	—	0.00084	0.00077	—	0.00077	—	7.31600	7.31600	0.00030	0.00006	—	7.34111
Architectural Coatings	0.80830	0.80830	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00130	0.00107	0.00808	0.01118	0.00002	0.00015	—	0.00015	0.00014	—	0.00014	—	1.21125	1.21125	0.00005	0.00001	—	1.21540
Architectural Coatings	0.14752	0.14752	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00693	0.00677	0.00722	0.08662	0.00000	0.00000	0.02418	0.02418	0.00000	0.00567	0.00567	—	22.6025	22.6025	0.00033	0.00088	0.00181	22.8738
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00037	0.00040	0.00500	0.00000	0.00000	0.00132	0.00132	0.00000	0.00031	0.00031	—	1.25413	1.25413	0.00002	0.00005	0.00165	1.27055
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00007	0.00007	0.00007	0.00091	0.00000	0.00000	0.00024	0.00024	0.00000	0.00006	0.00006	—	0.20764	0.20764	< 0.000005	0.00001	0.00027	0.21035
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	1.30473	1.08920	14.5932	8.37618	0.14273	0.28295	8.15766	8.44061	0.27047	2.19160	2.46207	—	14,998.3	14,998.3	0.12002	1.88421	79.7749	15,642.6
General Office Building	0.41834	0.37736	0.22535	5.03246	0.01179	0.00460	1.20636	1.21096	0.00424	0.30444	0.30868	—	1,194.30	1,194.30	0.03663	0.02526	3.20533	1,205.94
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	1.72306	1.46656	14.8186	13.4086	0.15452	0.28756	9.36401	9.65157	0.27471	2.49603	2.77075	—	16,192.6	16,192.6	0.15666	1.90947	82.9802	16,848.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	1.29116	1.07671	15.2296	7.62047	0.14235	0.28301	8.15766	8.44067	0.27053	2.19160	2.46213	—	14,960.3	14,960.3	0.11981	1.88757	2.06975	15,527.9
General Office Building	0.40259	0.36178	0.25000	4.09446	0.01089	0.00460	1.20636	1.21096	0.00424	0.30444	0.30868	—	1,103.10	1,103.10	0.03768	0.02710	0.08309	1,112.20

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	1.69375	1.43849	15.4796	11.7149	0.15324	0.28762	9.36401	9.65163	0.27477	2.49603	2.77080	—	16,063.4	16,063.4	0.15749	1.91466	2.15285	16,640.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.16832	0.14035	2.01514	1.00680	0.01856	0.03689	1.06329	1.10018	0.03526	0.28566	0.32092	—	1,769.79	1,769.79	0.01418	0.22335	4.07364	1,840.77
General Office Building	0.05213	0.04679	0.03360	0.55523	0.00144	0.00060	0.15724	0.15784	0.00055	0.03968	0.04023	—	132.013	132.013	0.00447	0.00327	0.16367	133.264
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.22046	0.18714	2.04874	1.56203	0.02000	0.03749	1.22053	1.25802	0.03581	0.32534	0.36116	—	1,901.80	1,901.80	0.01865	0.22662	4.23731	1,974.04

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	101.634	101.634	0.00969	0.00117	—	102.226

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	235.048	235.048	0.02241	0.00272	—	236.418
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	177.590	177.590	0.01693	0.00205	—	178.624
Total	—	—	—	—	—	—	—	—	—	—	—	—	514.272	514.272	0.04902	0.00594	—	517.268
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	101.634	101.634	0.00969	0.00117	—	102.226
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	235.048	235.048	0.02241	0.00272	—	236.418
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	177.590	177.590	0.01693	0.00205	—	178.624
Total	—	—	—	—	—	—	—	—	—	—	—	—	514.272	514.272	0.04902	0.00594	—	517.268
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	16.8267	16.8267	0.00160	0.00019	—	16.9247
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	38.9149	38.9149	0.00371	0.00045	—	39.1417
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	29.4020	29.4020	0.00280	0.00034	—	29.5733
Total	—	—	—	—	—	—	—	—	—	—	—	—	85.1436	85.1436	0.00812	0.00098	—	85.6397

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01421	0.00711	0.12919	0.10852	0.00078	0.00982	—	0.00982	0.00982	—	0.00982	—	154.140	154.140	0.01364	0.00029	—	154.567
General Office Building	0.01158	0.00579	0.10527	0.08843	0.00063	0.00800	—	0.00800	0.00800	—	0.00800	—	125.606	125.606	0.01112	0.00024	—	125.954
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.02579	0.01290	0.23446	0.19694	0.00141	0.01782	—	0.01782	0.01782	—	0.01782	—	279.746	279.746	0.02476	0.00053	—	280.522
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01421	0.00711	0.12919	0.10852	0.00078	0.00982	—	0.00982	0.00982	—	0.00982	—	154.140	154.140	0.01364	0.00029	—	154.567
General Office Building	0.01158	0.00579	0.10527	0.08843	0.00063	0.00800	—	0.00800	0.00800	—	0.00800	—	125.606	125.606	0.01112	0.00024	—	125.954
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.02579	0.01290	0.23446	0.19694	0.00141	0.01782	—	0.01782	0.01782	—	0.01782	—	279.746	279.746	0.02476	0.00053	—	280.522
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
General Light Industry	0.00259	0.00130	0.02358	0.01980	0.00014	0.00179	—	0.00179	0.00179	—	0.00179	—	25.5196	25.5196	0.00226	0.00005	—	25.5904
General Office Building	0.00211	0.00106	0.01921	0.01614	0.00012	0.00146	—	0.00146	0.00146	—	0.00146	—	20.7955	20.7955	0.00184	0.00004	—	20.8531
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00471	0.00235	0.04279	0.03594	0.00026	0.00325	—	0.00325	0.00325	—	0.00325	—	46.3151	46.3151	0.00410	0.00009	—	46.4435

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	0.56048	0.56048	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08083	0.08083	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.19666	0.18149	0.00930	1.10491	0.00007	0.00196	—	0.00196	0.00148	—	0.00148	—	4.54360	4.54360	0.00019	0.00004	—	4.55998
Total	0.83797	0.82280	0.00930	1.10491	0.00007	0.00196	—	0.00196	0.00148	—	0.00148	—	4.54360	4.54360	0.00019	0.00004	—	4.55998

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.56048	0.56048	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08083	0.08083	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.64131	0.64131	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.10229	0.10229	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01475	0.01475	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02458	0.02269	0.00116	0.13811	0.00001	0.00025	—	0.00025	0.00019	—	0.00019	—	0.51524	0.51524	0.00002	< 0.000005	—	0.51709
Total	0.14162	0.13973	0.00116	0.13811	0.00001	0.00025	—	0.00025	0.00019	—	0.00019	—	0.51524	0.51524	0.00002	< 0.000005	—	0.51709

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	4.96216	16.7197	21.6818	0.51041	0.01228	—	38.1022
General Office Building	—	—	—	—	—	—	—	—	—	—	—	4.83862	16.3034	21.1420	0.49770	0.01198	—	37.1535
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	3.70795	3.70795	0.00035	0.00004	—	3.72955
Total	—	—	—	—	—	—	—	—	—	—	—	9.80078	36.7310	46.5318	1.00846	0.02430	—	78.9852
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	4.96216	16.7197	21.6818	0.51041	0.01228	—	38.1022
General Office Building	—	—	—	—	—	—	—	—	—	—	—	4.83862	16.3034	21.1420	0.49770	0.01198	—	37.1535
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	3.70795	3.70795	0.00035	0.00004	—	3.72955
Total	—	—	—	—	—	—	—	—	—	—	—	9.80078	36.7310	46.5318	1.00846	0.02430	—	78.9852
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.82154	2.76813	3.58968	0.08450	0.00203	—	6.30825

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.80109	2.69921	3.50030	0.08240	0.00198	—	6.15119
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.61389	0.61389	0.00006	0.00001	—	0.61747
Total	—	—	—	—	—	—	—	—	—	—	—	1.62263	6.08124	7.70387	0.16696	0.00402	—	13.0769

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7.48345	0.00000	7.48345	0.74794	0.00000	—	26.1820
General Office Building	—	—	—	—	—	—	—	—	—	—	—	7.12073	0.00000	7.12073	0.71169	0.00000	—	24.9130
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	14.6042	0.00000	14.6042	1.45964	0.00000	—	51.0951
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7.48345	0.00000	7.48345	0.74794	0.00000	—	26.1820
General Office Building	—	—	—	—	—	—	—	—	—	—	—	7.12073	0.00000	7.12073	0.71169	0.00000	—	24.9130
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	14.6042	0.00000	14.6042	1.45964	0.00000	—	51.0951
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1.23897	0.00000	1.23897	0.12383	0.00000	—	4.33473
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.17892	0.00000	1.17892	0.11783	0.00000	—	4.12464
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	2.41789	0.00000	2.41789	0.24166	0.00000	—	8.45937

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.91489	2.91489
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03455	0.03455
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.94944	2.94944
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.91489	2.91489
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03455	0.03455
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.94944	2.94944
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48259	0.48259
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00572	0.00572
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48831	0.48831

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)

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.22296	0.18735	1.76341	3.09386	0.00422	0.06834	—	0.06834	0.06287	—	0.06287	—	457.320	457.320	0.01855	0.00371	—	458.890
Total	0.22296	0.18735	1.76341	3.09386	0.00422	0.06834	—	0.06834	0.06287	—	0.06287	—	457.320	457.320	0.01855	0.00371	—	458.890
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.22296	0.18735	1.76341	3.09386	0.00422	0.06834	—	0.06834	0.06287	—	0.06287	—	457.320	457.320	0.01855	0.00371	—	458.890
Total	0.22296	0.18735	1.76341	3.09386	0.00422	0.06834	—	0.06834	0.06287	—	0.06287	—	457.320	457.320	0.01855	0.00371	—	458.890
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.02899	0.02436	0.22924	0.40220	0.00055	0.00888	—	0.00888	0.00817	—	0.00817	—	53.9337	53.9337	0.00219	0.00044	—	54.1188
Total	0.02899	0.02436	0.22924	0.40220	0.00055	0.00888	—	0.00888	0.00817	—	0.00817	—	53.9337	53.9337	0.00219	0.00044	—	54.1188

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	1/1/2027	1/14/2027	5.00000	10.00000	—
Grading	Grading	1/15/2027	2/11/2027	5.00000	20.0000	—
Building Construction	Building Construction	2/12/2027	12/30/2027	5.00000	230.000	—
Paving	Paving	12/31/2027	1/27/2028	5.00000	20.0000	—
Architectural Coating	Architectural Coating	1/28/2028	2/24/2028	5.00000	20.0000	—

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	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/ Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	158.000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/ Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/ Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	—	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	9.24940	18.5000	LDA,LDT1,LDT2

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Construction	Vendor	4.16388	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	1.84988	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	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	0.00000	0.00000	38,107.5	12,702.5	12,824.4

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00000	0.00000	15.0000	0.00000	0.00000
Grading	0.00000	0.00000	20.0000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	4.90678

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	General Light Industry	0.00000	0%
Paving	General Office Building	0.00000	0%
Paving	Parking Lot	4.90678	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	346.196	0.03300	0.00400
2028	0.00000	346.196	0.03300	0.00400

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
General Light Industry	241.000	0.00000	0.00000	62,832.1	9,640.00	0.00000	0.00000	2,513,286
General Office Building	99.0000	0.00000	0.00000	25,810.7	1,732.50	0.00000	0.00000	451,687
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
General Light Industry	Wood Fireplaces	0	0
General Light Industry	Gas Fireplaces	0	0
General Light Industry	Propane Fireplaces	0	0
General Light Industry	Electric Fireplaces	0	0
General Light Industry	No Fireplaces	0	0
General Light Industry	Conventional Wood Stoves	0	0
General Light Industry	Catalytic Wood Stoves	0	0
General Light Industry	Non-Catalytic Wood Stoves	0	0
General Light Industry	Pellet Wood Stoves	0	0
General Office Building	Wood Fireplaces	0	0

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
General Office Building	Gas Fireplaces	0	0
General Office Building	Propane Fireplaces	0	0
General Office Building	Electric Fireplaces	0	0
General Office Building	No Fireplaces	0	0
General Office Building	Conventional Wood Stoves	0	0
General Office Building	Catalytic Wood Stoves	0	0
General Office Building	Non-Catalytic Wood Stoves	0	0
General Office Building	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0

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)
0.00000	0.00000	38,107.5	12,702.5	12,824.4

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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)
General Light Industry	107,154	346.196	0.0330	0.0040	480,958
General Office Building	247,815	346.196	0.0330	0.0040	391,924
Parking Lot	187,236	346.196	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	2,589,538	0.00000
General Office Building	2,525,063	0.00000
Parking Lot	0.00000	736,672

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	13.8855	0.00000
General Office Building	13.2125	0.00000
Parking Lot	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000

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
Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

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	27.7700	annual days of extreme heat
Extreme Precipitation	2.60000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.89000	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	3	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

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
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	3	1	1	3
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	91.0516
AQ-PM	51.3752
AQ-DPM	21.5432
Drinking Water	67.4285
Lead Risk Housing	21.1972
Pesticides	70.1724
Toxic Releases	24.1935
Traffic	74.0875
Effect Indicators	—
CleanUp Sites	0.00000
Groundwater	0.00000
Haz Waste Facilities/Generators	50.1390

Indicator	Result for Project Census Tract
Impaired Water Bodies	12.4528
Solid Waste	22.0848
Sensitive Population	—
Asthma	48.7537
Cardio-vascular	78.1655
Low Birth Weights	53.4642
Socioeconomic Factor Indicators	—
Education	79.2711
Housing	24.9430
Linguistic	16.3622
Poverty	46.8216
Unemployment	73.4123

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	60.29770307
Employed	40.65186706
Median HI	53.71487232
Education	—

Indicator	Result for Project Census Tract
Bachelor's or higher	37.28987553
High school enrollment	21.68612858
Preschool enrollment	56.08879764
Transportation	—
Auto Access	87.47593995
Active commuting	24.03438984
Social	—
2-parent households	65.68715514
Voting	37.14872321
Neighborhood	—
Alcohol availability	82.31746439
Park access	26.70345182
Retail density	10.84306429
Supermarket access	22.85384319
Tree canopy	2.014628513
Housing	—
Homeownership	88.6179905
Housing habitability	84.80687797
Low-inc homeowner severe housing cost burden	74.63107917
Low-inc renter severe housing cost burden	62.78711664
Uncrowded housing	64.30129603

Indicator	Result for Project Census Tract
Health Outcomes	—
Insured adults	49.23649429
Arthritis	1.9
Asthma ER Admissions	51.4
High Blood Pressure	4.3
Cancer (excluding skin)	3.1
Asthma	46.1
Coronary Heart Disease	2.1
Chronic Obstructive Pulmonary Disease	9.6
Diagnosed Diabetes	20.7
Life Expectancy at Birth	41.6
Cognitively Disabled	70.6
Physically Disabled	50.9
Heart Attack ER Admissions	20.0
Mental Health Not Good	57.3
Chronic Kidney Disease	3.6
Obesity	36.5
Pedestrian Injuries	19.6
Physical Health Not Good	33.7
Stroke	7.6
Health Risk Behaviors	—

Indicator	Result for Project Census Tract
Binge Drinking	80.1
Current Smoker	59.6
No Leisure Time for Physical Activity	36.0
Climate Change Exposures	—
Wildfire Risk	7.4
SLR Inundation Area	0.0
Children	31.0
Elderly	48.0
English Speaking	75.4
Foreign-born	34.0
Outdoor Workers	12.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	83.3
Traffic Density	34.3
Traffic Access	23.0
Other Indices	—
Hardship	58.4
Other Decision Support	—
2016 Voting	52.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	55.0000
Healthy Places Index Score for Project Location (b)	50.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
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

8.1. Justifications

Screen	Justification
Construction: Construction Phases	Demolition phase was removed from the construction schedule as the project site is undeveloped.

Screen	Justification
Construction: Off-Road Equipment	Excavator hp increased to reflect project conditions.
Operations: Vehicle Data	Adjusted weekday trip rate consistent with the traffic report. Removed Saturday and Sunday trip rate values consistent with the proposed project's Monday through Friday operations. Trips based on Ganddini traffic report. Passenger vehicles trips for employees were assigned to the General Office Building land use. Employee passenger trips were assigned based on on-street employee parking at existing facilities. Passenger vehicles used for deliveries were found by subtracting the assumed employee passenger vehicle trips from total passenger trips, and were assigned to the general industry land use. Truck trips from traffic report assigned to light industry land use. The trip length for truck trips was increased to 40 miles, consistent with SCAQMD recommendations. The trip length for passenger vehicle trips was adjusted to 17.5 miles for all trips, consistent with the VMT/Employee value in the traffic report.
Operations: Fleet Mix	Employee passenger vehicle trips assigned to General Office Building. Truck trips, including passenger vehicle delivery truck trips, were assigned to General Light Industry. Truck fleet mix based on information from applicant and Ganddini's traffic report.

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	Start Date	1/30/2027	1/1/2027
Site Preparation	Site Preparation	End Date	2/13/2027	1/14/2027
Grading	Grading	Start Date	2/14/2027	1/15/2027
Grading	Grading	End Date	3/14/2027	2/11/2027
Building Construction	Building Construction	Start Date	3/15/2027	2/12/2027
Building Construction	Building Construction	End Date	1/31/2028	12/30/2027
Paving	Paving	Start Date	2/1/2028	12/31/2027

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Paving	Paving	End Date	2/29/2028	1/27/2028
Architectural Coating	Architectural Coating	Start Date	3/1/2028	1/28/2028
Architectural Coating	Architectural Coating	End Date	3/29/2028	2/24/2028

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Grading	Excavators	Horsepower	36.0000	158.000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
General Light Industry	Weekday Trip Rate	size/day	4.96000	21.5217
General Light Industry	Saturday Trip Rate	size/day	1.99000	0.00000
General Light Industry	Sunday Trip Rate	size/day	5.00000	0.00000
General Light Industry	Non-Res H-W Trip Length	miles	22.3778	0.00000
General Light Industry	Non-Res W-O Trip Length	miles	12.3857	40.0000
General Light Industry	Non-Res O-O Trip Length	miles	7.98628	0.00000
General Light Industry	Non-Res H-W Trip	%	53.5256	0.00000
General Light Industry	Non-Res W-O Trip	%	15.3846	100.0000

Land Use	Model Parameter	Units	Default Value	New Value
General Light Industry	Non-Res O-O Trip	%	31.0897	0.00000
General Office Building	Weekday Trip Rate	size/day	9.74000	6.96840
General Office Building	Saturday Trip Rate	size/day	2.21000	0.00000
General Office Building	Sunday Trip Rate	size/day	0.70000	0.00000
General Office Building	Non-Res H-W Trip Length	miles	22.3778	17.5000
General Office Building	Non-Res W-O Trip Length	miles	12.3857	0.00000
General Office Building	Non-Res O-O Trip Length	miles	7.98628	0.00000
General Office Building	Non-Res H-W Trip	%	53.5256	100.0000
General Office Building	Non-Res W-O Trip	%	15.3846	0.00000
General Office Building	Non-Res O-O Trip	%	31.0897	0.00000
Parking Lot	Non-Res H-W Trip Length	miles	22.3778	0.00000
Parking Lot	Non-Res W-O Trip Length	miles	12.3857	0.00000
Parking Lot	Non-Res O-O Trip Length	miles	7.98628	0.00000
Parking Lot	Non-Res H-W Trip	%	53.5256	0.00000
Parking Lot	Non-Res W-O Trip	%	15.3846	0.00000
Parking Lot	Non-Res O-O Trip	%	31.0897	0.00000

8.5.1.2. Fleet Mix

Land Use	Season	Model Parameter	Units	Default Value	New Value
General Light Industry	A	Heavy-Heavy-Duty Trucks	%	2%	3%
General Light Industry	A	Passenger Cars	%	49%	0%

Land Use	Season	Model Parameter	Units	Default Value	New Value
General Light Industry	A	Light-Duty Trucks 1	%	4%	7%
General Light Industry	A	Light-Duty Trucks 2	%	21%	0%
General Light Industry	A	Light Heavy-Duty Trucks 1	%	3%	0%
General Light Industry	A	Light Heavy-Duty Trucks 2	%	1%	65%
General Light Industry	A	Motorcycles	%	2%	0%
General Light Industry	A	Medium-Duty Trucks	%	16%	0%
General Light Industry	A	Motor Homes	%	1%	0%
General Light Industry	A	Medium-Heavy-Duty Trucks	%	2%	25%
General Light Industry	A	Other Buses	%	< 0.5%	0%
General Light Industry	A	School Buses	%	< 0.5%	0%
General Light Industry	A	Urban Buses	%	< 0.5%	0%
General Light Industry	S	Heavy-Heavy-Duty Trucks	%	2%	3%
General Light Industry	S	Passenger Cars	%	49%	0%
General Light Industry	S	Light-Duty Trucks 1	%	4%	7%
General Light Industry	S	Light-Duty Trucks 2	%	21%	0%
General Light Industry	S	Light Heavy-Duty Trucks 1	%	3%	0%
General Light Industry	S	Light Heavy-Duty Trucks 2	%	1%	65%
General Light Industry	S	Motorcycles	%	2%	0%
General Light Industry	S	Medium-Duty Trucks	%	16%	0%
General Light Industry	S	Motor Homes	%	1%	0%
General Light Industry	S	Medium-Heavy-Duty Trucks	%	2%	25%

Land Use	Season	Model Parameter	Units	Default Value	New Value
General Light Industry	S	Other Buses	%	< 0.5%	0%
General Light Industry	S	School Buses	%	< 0.5%	0%
General Light Industry	S	Urban Buses	%	< 0.5%	0%
General Light Industry	W	Heavy-Heavy-Duty Trucks	%	2%	3%
General Light Industry	W	Passenger Cars	%	49%	0%
General Light Industry	W	Light-Duty Trucks 1	%	4%	7%
General Light Industry	W	Light-Duty Trucks 2	%	21%	0%
General Light Industry	W	Light Heavy-Duty Trucks 1	%	3%	0%
General Light Industry	W	Light Heavy-Duty Trucks 2	%	1%	65%
General Light Industry	W	Motorcycles	%	2%	0%
General Light Industry	W	Medium-Duty Trucks	%	16%	0%
General Light Industry	W	Motor Homes	%	1%	0%
General Light Industry	W	Medium-Heavy-Duty Trucks	%	2%	25%
General Light Industry	W	Other Buses	%	< 0.5%	0%
General Light Industry	W	School Buses	%	< 0.5%	0%
General Light Industry	W	Urban Buses	%	< 0.5%	0%
General Office Building	A	Heavy-Heavy-Duty Trucks	%	2%	0%
General Office Building	A	Passenger Cars	%	49%	54%
General Office Building	A	Light-Duty Trucks 1	%	4%	4%
General Office Building	A	Light-Duty Trucks 2	%	21%	23%
General Office Building	A	Light Heavy-Duty Trucks 1	%	3%	0%

Land Use	Season	Model Parameter	Units	Default Value	New Value
General Office Building	A	Light Heavy-Duty Trucks 2	%	1%	0%
General Office Building	A	Motorcycles	%	2%	2%
General Office Building	A	Medium-Duty Trucks	%	16%	17%
General Office Building	A	Motor Homes	%	1%	0%
General Office Building	A	Medium-Heavy-Duty Trucks	%	2%	0%
General Office Building	A	Other Buses	%	< 0.5%	0%
General Office Building	A	School Buses	%	< 0.5%	0%
General Office Building	A	Urban Buses	%	< 0.5%	< 0.5%
General Office Building	S	Heavy-Heavy-Duty Trucks	%	2%	0%
General Office Building	S	Passenger Cars	%	49%	54%
General Office Building	S	Light-Duty Trucks 1	%	4%	4%
General Office Building	S	Light-Duty Trucks 2	%	21%	23%
General Office Building	S	Light Heavy-Duty Trucks 1	%	3%	0%
General Office Building	S	Light Heavy-Duty Trucks 2	%	1%	0%
General Office Building	S	Motorcycles	%	2%	2%
General Office Building	S	Medium-Duty Trucks	%	16%	17%
General Office Building	S	Motor Homes	%	1%	0%
General Office Building	S	Medium-Heavy-Duty Trucks	%	2%	0%
General Office Building	S	Other Buses	%	< 0.5%	0%
General Office Building	S	School Buses	%	< 0.5%	0%
General Office Building	S	Urban Buses	%	< 0.5%	< 0.5%

Land Use	Season	Model Parameter	Units	Default Value	New Value
General Office Building	W	Heavy-Heavy-Duty Trucks	%	2%	0%
General Office Building	W	Passenger Cars	%	49%	54%
General Office Building	W	Light-Duty Trucks 1	%	4%	4%
General Office Building	W	Light-Duty Trucks 2	%	21%	23%
General Office Building	W	Light Heavy-Duty Trucks 1	%	3%	0%
General Office Building	W	Light Heavy-Duty Trucks 2	%	1%	0%
General Office Building	W	Motorcycles	%	2%	2%
General Office Building	W	Medium-Duty Trucks	%	16%	17%
General Office Building	W	Motor Homes	%	1%	0%
General Office Building	W	Medium-Heavy-Duty Trucks	%	2%	0%
General Office Building	W	Other Buses	%	< 0.5%	0%
General Office Building	W	School Buses	%	< 0.5%	0%
General Office Building	W	Urban Buses	%	< 0.5%	< 0.5%

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Attachment 3
Energy Calculations

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Attachment 3
Green Bee Concrete Contractor Yard Project
Energy Calculations
Prepared by: MIG, Inc.
October 2026

Contents:

Sheet 1: Summary of Energy Consumption
Sheet 2: Construction On-site Fuel Consumption Estimates
Sheet 3: Construction Off-site Fuel Consumption Estimates
Sheet 4: Operational Fuel Efficiency
Sheet 5: Raw EMFAC2021 (v1.0.2) Emissions Inventory for Riverside County (2026)

Sheet 1: Summary of Energy Consumption

Table 1-1: Off-Road Equipment Fuel Consumption

Year	Diesel Fuel Consumed (Gal)	Gasoline Fuel Consumed (Gal)	Electricity Consumed (kWh)
Off-Road Equipment	27,581	--	--
On-Road Equipment	2,420	4,273	987
Total	30,001	4,273	987

Table 1-2: Operational Vehicle Fuel Consumption

Operational Estimates	Diesel Fuel Consumed (Gal)	Gasoline Fuel Consumed (Gal)	Electricity Consumed (kW)
Mobile Sources	100,043	80,527	86,131
Annual Light Industrial VMT:	2,513,286		
Annual General Office VMT:	451,687		

Table 1-3: Operational Energy Consumption (Building)

Land Use	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
General Light Industry	107,154	480,958
General Office Building	247,815	391,924
Parking Lot	187,236	0
Total	542,205	872,882

Table 1-4: Total Operational Energy Consumption

Source	Diesel Fuel Consumed (Gal)	Gasoline Fuel Consumed (Gal)	Electricity Consumed (kW)	Natural Gas (kBTU/yr)
Mobile Source	100,043	80,527	86,131	0
Building	0	0	542,205	872,882
Total	100,043	80,527	628,336	872,882

Sheet 2: Construction On-site Fuel Consumption Estimations

Phase	Days	Equipment	# of Pieces	Hr/Day	Horsepower	Load Factor	Runtime (bhp-hr)	Consumption (bhp-hr/gal)[1]	Gallons of Diesel
Site Preparation	10	Rubber Tired Dozers	3	8	367	0.40	35,232	18.5	1,904
		Tractors/Loaders/Backhoes	4	8	84	0.37	9,946		538
Grading	20	Grader	1	8	148	0.41	9,709		525
		Excavators	1	8	36	0.38	2,189		118
		Rubber Tired Dozers	1	8	367	0.40	23,488		1,270
		Tractors/Loaders/Backhoes	3	8	84	0.37	14,918		806
Building Construction	230	Forklifts	3	8	82	0.20	89,396		4,832
		Tractors/Loaders/Backhoes	3	7	84	0.37	147,972		7,998
		Generator Sets	1	5	14	0.74	12,391		670
		Cranes	1	5	367	0.29	112,603		6,087
		Welders	1	5	46	0.45	24,757		1,338
Paving	20	Pavers	2	8	81	0.42	10,886		588
		Paving Equipment	2	8	89	0.36	10,253		554
		Rollers	2	8	36	0.38	4,378		237
Architectural Coating	20	Air Compressors	1	6	37	0.48	2,131		115
								Total	27,581

[1] The Carl Moyer Program Guidelines 2017 Revisions. Table D-21. Approved by the Board April 27, 2017.

Sheet 3: Construction Off-site Fuel Consumption Estimates

Phase	Days	Number of Trips	Dist (mi)	Total VMT	Vehicle Class	Percent of Workers by Vehcile Class	Gasoline Average Fuel Economy (MPG)	Gasoline Fuel Split	Gasoline Fuel Consumption by Class (gal)	Diesel Average Fuel Economy (MPG)	Diesel Fuel Split	Diesel Fuel Consumption by Class (gal)	Electricity Average Economy (mi/kWh)	Electric Split	Electricity Consumption by Class (kWh)	Hybrid Average Economy (mi/kWh)	Hybrid Average Economy (mi/gal)	Hybrid Split	Hybrid Consumption by Class (kWh)	Hybrid Consumption by Class (gal)	Gasoline Fuel Consumption by Phase (gal)	Diesel Fuel Consumption by Phase (gal)	Electricity Consumption by Phase (kWh)
Worker Trips																							
Site Preparation	10	35	18.5	6475	LDA	0.25	30.0	92.16%	50	42.9	0.27%	0.1	2.59	4.78%	29.9	6.4	62.6	2.79%	7.1	0.7	245.7	0.3	48.3
					LDT1	0.50	24.7	99.55%	131	24.4	0.04%	0.1	2.59	0.21%	2.6	5.8	69.3	0.19%	1.1	0.1			
					LDT2	0.25	24.6	97.90%	64	33.4	0.33%	0.2	2.59	0.81%	5.1	6.1	66.0	0.96%	2.6	0.2			
Grading	20	30	18.5	11100	LDA	0.25	30.0	92.16%	85	42.9	0.3%	0.2	2.59	4.78%	51.3	6.4	62.6	2.79%	12.1	1.2	421.2	0.5	82.8
					LDT1	0.50	24.7	99.55%	224	24.4	0.04%	0.1	2.59	0.21%	4.5	5.8	69.3	0.19%	1.8	0.2			
					LDT2	0.25	24.6	97.90%	110	33.4	0.3%	0.3	2.59	0.81%	8.7	6.1	66.0	0.96%	4.4	0.4			
Building Construction	230	18	18.5	77441	LDA	0.25	30.0	92.2%	595	42.9	0.3%	1.2	2.59	4.78%	357.6	6.4	62.6	2.79%	84.5	8.6	2,938.8	3.8	577.8
					LDT1	0.50	24.7	99.6%	1,562	24.4	0.04%	0.7	2.59	0.21%	31.6	5.8	69.3	0.19%	12.8	1.1			
					LDT2	0.25	24.6	97.9%	770	33.4	0.3%	1.9	2.59	0.81%	60.7	6.1	66.0	0.96%	30.6	2.8			
Paving	20	30	18.5	11100	LDA	0.25	30.0	92.2%	85	42.9	0.0	0.2	2.59	4.78%	51.3	6.4	62.6	2.79%	12.1	1.2	421.2	0.5	82.8
					LDT1	0.50	24.7	99.6%	224	24.4	0.0	0.1	2.59	0.21%	4.5	5.8	69.3	0.19%	1.8	0.2			
					LDT2	0.25	24.6	97.9%	110	33.4	0.0	0.3	2.59	0.81%	8.7	6.1	66.0	0.96%	4.4	0.4			
Architectural Coating	20	4	18.5	1332	LDA	0.25	30.0	92.2%	10	42.9	0.0	0.0	2.59	4.78%	6.2	6.4	62.6	2.79%	1.5	0.1	50.5	0.1	9.9
					LDT1	0.50	24.7	99.6%	27	24.4	0.0	0.0	2.59	0.21%	0.5	5.8	69.3	0.19%	0.2	0.0			
					LDT2	0.25	24.6	97.9%	13	33.4	0.0	0.0	2.59	0.81%	1.0	6.1	66.0	0.96%	0.5	0.0			
Sub-Total Worker Trips Energy Consumption							Gasoline (gal)		4,060.1	Diesel (gal)		5.3	Electricity (kWh)		624.2	Hybrid (kWh; gal of gasoline)			177.5	17.4	4,077.5	5.3	801.7
Vendor Trips																							
Building Construction	230	8.2	10.2	19237	MHDT	0.5	5.2	10.6%	195	9.0	87.43%	933	0.95	0.80%	81.11	--	--	--	--	--	195.7	2,414.9	185.5
					HHDT	0.5	3.8	0.0%	1	6.2	96.02%	1,482	0.55	0.60%	104.36	--	--	--	--	--			
Sub-Total Vendor Trips Energy Consumption							Gasoline (gal)		195.7	Diesel (gal)		2,414.9	Electricity (kWh)		185.5	--	--	--	--	--	196	2,415	185
Hauling Trips																							
Sub-Total Haul Trips Energy Consumption							Gasoline (gal)		0.000	Diesel (gal)		0.0	Electricity (kWh)		0	--	--	--	--	--	0.0	0	0
Total On-Road Construction Trips Genergy Usage									**Gasoline (gal)**	**4,273**		**Diesel (gal)**	**2,420**		**Electricity (kWh)**			**987**					

Sheet 4: Average Fuel Efficiency - Riverside County

EMFAC2025 Riverside County Fuel Efficiency Estimates for 2028

Table 1: 2028 Riverside County Average Vehicle Fuel Efficiency (Gasoline)

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	12.03	309.69	0.02	20,159.67
LDA	550,293.46	18,139,343.06	617.71	29,365.70
LDT1	48,500.48	1,473,783.02	56.68	26,000.88
LDT2	293,236.96	10,513,504.99	368.48	28,532.37
LHDT1	22,058.73	685,467.23	34.00	20,159.67
LHDT2	4,860.73	171,494.00	8.51	20,159.67
MCY	31,519.87	168,663.52	1.67	100,937.28
MDV	216,791.43	7,366,877.61	255.32	28,853.66
MH	5,932.24	47,654.68	2.36	20,159.67
MHDT	2,527.71	110,926.45	5.50	20,159.67
OBUS	433.44	12,608.04	0.63	20,159.67
SBUS	463.64	17,927.82	0.89	20,159.67
UBUS	5.59	230.92	0.01	20,159.67
TOTAL	1,176,636.32	38,708,791.05	1,351.77	28.64

Table 2: 2028 Riverside County Average Vehicle Fuel Efficiency (Diesel)

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	34,560.69	5,366,323.20	1,299.49	4129.57
LDA	1,132.14	28,817.62	0.10	292640.32
LDT1	16.76	371.31	0.00	292640.32
LDT2	571.03	20,148.69	0.07	292640.32
LHDT1	16,409.72	499,846.21	98.52	5073.33
LHDT2	13,509.05	519,829.51	117.74	4415.01
MCY	0.00	0.00	0.00	0.00
MDV	7,294.56	288,352.58	0.99	292640.32
MH	2,537.79	20,172.16	3.52	5736.03
MHDT	16,934.00	643,444.52	154.32	4169.47
OBUS	279.57	14,312.37	3.21	4454.27
SBUS	535.23	10,411.55	1.40	7432.18
UBUS	0.00	0.00	0.00	0.00
TOTAL	93780.54	7412029.75	1679.36	4.41

Table 3: 2028 Riverside County Average Vehicle Fuel Efficiency (Electricity)

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Energy Consumption (kWh/day)	Miles Per kWh
HHDT	91.21	5,597.76	10,052.81	0.56
LDA	56,409.14	2,051,547.09	691,694.97	2.97
LDT1	2,224.00	90,194.93	34,652.20	2.60
LDT2	25,372.53	970,272.08	418,116.72	2.32
LHDT1	194.43	9,873.48	5,590.33	1.77
LHDT2	160.55	8,452.51	4,784.11	1.77
MCY	0.00	0.00	0.00	0.00
MDV	13,410.80	501,053.30	261,746.94	1.91
MH	0.00	0.00	0.00	0.00
MHDT	171.01	9,512.08	11,976.88	0.79
OBUS	14.59	898.11	1,128.48	0.80
SBUS	16.00	477.21	655.81	0.73
UBUS	31.75	2,690.32	5,434.30	0.50
TOTAL	98,096.01	3,650,568.87	1,445,833.56	2.52

Source: EMFAC2025 (v2.1.1) Emissions Inventory
Region Type: County
Region: Riverside
Calendar Year: 2028
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for Total VMT, Combustion VMT, and Electric VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Gasoline and Diesel Fuel Consumption, 1000 diesel equivalent gallons/day for Natural Gas Fuel Consumption (1 dge = 139.3 stan

Region	Calenda	Vehicle (	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Cor	Hydrogen (	NOx_RUNE	NOx_IDLEX	NOx_STRE	NOx_TOTE	PM2.5_RUI	PM2.5_IDL	PM2.5_STF	PM2.5_TO	PM2.5_PM	PM2.5_PM
Riverside	2028	HHDT	Aggregate	Aggregate	Gasoline	12.0348	309.6885	309.6885	0	240.7922	0	0	0.003493	0	0.000227	0.00372	7.85E-07	0	3.38E-07	1.12E-06	1.71E-06	1.09E-05
Riverside	2028	HHDT	Aggregate	Aggregate	Diesel	34560.69	5366323	5366323	0	656678.8	0	0	3.726197	1.382724	1.256474	6.365394	0.093206	0.000723	0	0.093929	0.052784	0.15206
Riverside	2028	HHDT	Aggregate	Aggregate	Electricity	91.20808	5597.761	0	5597.761	548.6323	10052.81	0	0	0	0	0	0	0	0	0	5.55E-05	8.52E-05
Riverside	2028	HHDT	Aggregate	Aggregate	Natural Ga	1199.566	119315	119315	0	13845.9	0	0	0.038161	0.020859	0	0.05902	0.00021	7.18E-05	0	0.000281	0.001184	0.003791
Riverside	2028	HHDT	Aggregate	Aggregate	Fuel Cell El	5.112754	303.7472	0	303.7472	26.21842	0	37.01197	0	0	0	0	0	0	0	0	3.01E-06	4.80E-06
Riverside	2028	LDA	Aggregate	Aggregate	Gasoline	536387.6	17897249	17897249	0	2362479	0	0	0.89312	0	0.367494	1.260613	0.05255	0	0.004603	0.057154	0.039457	0.043704
Riverside	2028	LDA	Aggregate	Aggregate	Diesel	1132.145	28817.62	28817.62	0	4689.04	0	0	0.005943	0	0	0.005943	0.000561	0	0	0.000561	6.35E-05	7.30E-05
Riverside	2028	LDA	Aggregate	Aggregate	Electricity	42503.24	1768940	0	1768940	205892.3	587960.5	0	0	0	0	0	0	0	0	0	0.004485	0.001733
Riverside	2028	LDA	Aggregate	Aggregate	Plug-in Hyb	13905.9	524700.6	242093.7	282606.9	52625.83	103734.5	0	0.001719	0	0.005356	0.007075	0.000759	0	0.000111	0.00087	0.00133	0.000592
Riverside	2028	LDA	Aggregate	Aggregate	Fuel Cell El	135.1799	6651.777	0	6651.777	681.6406	0	101.8181	0	0	0	0	0	0	0	0	1.69E-05	6.48E-06
Riverside	2028	LDT1	Aggregate	Aggregate	Gasoline	47820.46	1458679	1458679	0	192959.7	0	0	0.368288	0	0.076111	0.444399	0.005536	0	0.000602	0.006138	0.003216	0.004498
Riverside	2028	LDT1	Aggregate	Aggregate	Diesel	16.75733	371.3148	371.3148	0	45.00563	0	0	0.000561	0	0	0.000561	9.21E-05	0	0	9.21E-05	8.19E-07	1.30E-06
Riverside	2028	LDT1	Aggregate	Aggregate	Electricity	1543.977	73078.03	0	73078.03	7599.568	27315.67	0	0	0	0	0	0	0	0	0	0.000185	7.15E-05
Riverside	2028	LDT1	Aggregate	Aggregate	Plug-in Hyb	680.0233	32221.15	15104.24	17116.9	2770.639	7336.527	0	0.000107	0	0.000304	0.000412	2.95E-05	0	3.51E-06	3.30E-05	8.17E-05	3.62E-05
Riverside	2028	LDT2	Aggregate	Aggregate	Gasoline	284577.1	10326755	10326755	0	1366695	0	0	0.657297	0	0.283879	0.941176	0.027987	0	0.002478	0.030465	0.022767	0.030081
Riverside	2028	LDT2	Aggregate	Aggregate	Diesel	571.027	20148.69	20148.69	0	2776.061	0	0	0.001037	0	0	0.001037	0.00011	0	0	0.00011	4.44E-05	5.98E-05
Riverside	2028	LDT2	Aggregate	Aggregate	Electricity	16712.67	763575.4	0	763575.4	87261.89	317032.9	0	0	0	0	0	0	0	0	0	0.001936	0.000747
Riverside	2028	LDT2	Aggregate	Aggregate	Plug-in Hyb	8659.862	393446.6	186749.9	206696.6	36780.5	101083.8	0	0.001327	0	0.004085	0.005412	0.00038	0	4.90E-05	0.000429	0.000998	0.000442
Riverside	2028	LHDT1	Aggregate	Aggregate	Gasoline	22058.73	685467.2	685467.2	0	315677.5	0	0	0.112338	0.000803	0.195601	0.308743	0.000821	0	7.99E-05	0.000901	0.001511	0.020628
Riverside	2028	LHDT1	Aggregate	Aggregate	Diesel	16409.72	499846.2	499846.2	0	198270.7	0	0	0.797155	0.034175	0	0.83133	0.012025	0.000458	0	0.012482	0.001653	0.015042
Riverside	2028	LHDT1	Aggregate	Aggregate	Electricity	194.4339	9873.481	0	9873.481	2558.406	5590.328	0	0	0	0	0	0	0	0	0	2.18E-05	0.000149
Riverside	2028	LHDT1	Aggregate	Aggregate	Fuel Cell El	10.97845	592.61	0	592.61	144.457	0	22.9334	0	0	0	0	0	0	0	0	1.31E-06	8.92E-06
Riverside	2028	LHDT2	Aggregate	Aggregate	Gasoline	4860.733	171494	171494	0	78823.63	0	0	0.022748	0.000173	0.047644	0.070565	0.000195	0	1.43E-05	0.000209	0.000378	0.006021
Riverside	2028	LHDT2	Aggregate	Aggregate	Diesel	13509.05	519829.5	519829.5	0	184958.3	0	0	0.331684	0.022212	0	0.353896	0.00753	0.000426	0	0.007956	0.001719	0.01825
Riverside	2028	LHDT2	Aggregate	Aggregate	Electricity	160.5487	8452.513	0	8452.513	2393.844	4784.112	0	0	0	0	0	0	0	0	0	1.86E-05	0.000148
Riverside	2028	LHDT2	Aggregate	Aggregate	Fuel Cell El	9.197045	518.5581	0	518.5581	137.1315	0	20.06532	0	0	0	0	0	0	0	0	1.14E-06	9.10E-06
Riverside	2028	MCY	Aggregate	Aggregate	Gasoline	31519.87	168663.5	168663.5	0	60375.05	0	0	0.095698	0	0.006856	0.102554	0.000409	0	0.000208	0.000617	0.000186	0.000781
Riverside	2028	MDV	Aggregate	Aggregate	Gasoline	211750.7	7260150	7260150	0	958615.9	0	0	0.850075	0	0.311621	1.161697	0.020602	0	0.001894	0.022496	0.016006	0.021988
Riverside	2028	MDV	Aggregate	Aggregate	Diesel	7294.559	288352.6	288352.6	0	35001.7	0	0	0.013138	0	0	0.013138	0.000887	0	0	0.000887	0.000636	0.000831
Riverside	2028	MDV	Aggregate	Aggregate	Electricity	8370.062	385320.2	0	385320.2	42115.25	191031.1	0	0	0	0	0	0	0	0	0	0.000977	0.000377
Riverside	2028	MDV	Aggregate	Aggregate	Plug-in Hyb	5040.739	222460.4	106727.3	115733.1	20829.2	70715.84	0	0.000758	0	0.002297	0.003056	0.000239	0	3.11E-05	0.00027	0.000564	0.00025
Riverside	2028	MH	Aggregate	Aggregate	Gasoline	5932.237	47654.68	47654.68	0	628.4547	0	0	0.015232	0	0.000306	0.015538	5.43E-05	0	2.28E-07	5.45E-05	0.000158	0.000775
Riverside	2028	MH	Aggregate	Aggregate	Diesel	2537.792	20172.16	20172.16	0	268.7434	0	0	0.072219	0	0	0.072219	0.002132	0	0	0.002132	8.89E-05	0.000327
Riverside	2028	MHDT	Aggregate	Aggregate	Gasoline	2527.712	110926.5	110926.5	0	50574.46	0	0	0.0283	0.000244	0.02236	0.050904	0.000114	0	2.63E-05	0.000141	0.000367	0.001801
Riverside	2028	MHDT	Aggregate	Aggregate	Diesel	16934	643444.5	643444.5	0	205503.8	0	0	0.251765	0.116269	0.245937	0.613971	0.003308	7.77E-05	0	0.003386	0.002128	0.01047
Riverside	2028	MHDT	Aggregate	Aggregate	Electricity	171.0062	9512.08	0	9512.08	1882.095	11976.88	0	0	0	0	0	0	0	0	0	3.15E-05	7.71E-05
Riverside	2028	MHDT	Aggregate	Aggregate	Natural Ga	135.1277	5343.764	5343.764	0	1260.893	0	0	0.000515	0.000957	0	0.001471	4.49E-06	2.69E-06	0	7.18E-06	1.77E-05	8.69E-05
Riverside	2028	MHDT	Aggregate	Aggregate	Fuel Cell El	7.036749	350.8156	0	350.8156	66.16813	0	30.21379	0	0	0	0	0	0	0	0	1.16E-06	2.85E-06
Riverside	2028	OBUS	Aggregate	Aggregate	Gasoline	433.4386	12608.04	12608.04	0	3859.147	0	0	0.005245	1.38E-05	0.001646	0.006904	8.74E-06	0	9.56E-07	9.69E-06	4.17E-05	0.000205
Riverside	2028	OBUS	Aggregate	Aggregate	Diesel	279.5689	14312.37	14312.37	0	3004.373	0	0	0.024253	0.001641	0.004085	0.029979	0.000343	2.54E-06	0	0.000345	4.73E-05	0.000291
Riverside	2028	OBUS	Aggregate	Aggregate	Electricity	14.59029	898.1096	0	898.1096	129.8536	1128.483	0	0	0	0	0	0	0	0	0	2.97E-06	7.30E-06
Riverside	2028	OBUS	Aggregate	Aggregate	Natural Ga	76.03012	3542.857	3542.857	0	676.668	0	0	0	0.00013	0	0.00013	0	3.01E-07	0	3.01E-07	1.17E-05	5.76E-05
Riverside	2028	OBUS	Aggregate	Aggregate	Fuel Cell El	0.608674	38.88836	0	38.88836	5.417198	0	3.363483	0	0	0	0	0	0	0	0	1.29E-07	3.16E-07
Riverside	2028	SBUS	Aggregate	Aggregate	Gasoline	463.6433	17927.82	17927.82	0	1854.573	0	0	0.006	0.000467	0.001343	0.00781	2.54E-05	0	1.28E-06	2.67E-05	3.95E-05	0.000324
Riverside	2028	SBUS	Aggregate	Aggregate	Diesel	535.2338	10411.55	10411.55	0	7750.185	0	0	0.062656	0.015157	0.003433	0.081245	0.000197	7.08E-06	0	0.000204	3.44E-05	0.000188
Riverside	2028	SBUS	Aggregate	Aggregate	Electricity	16	477.207	0	477.207	231.68	655.8121	0	0	0	0	0	0	0	0	0	1.58E-06	4.31E-06
Riverside	2028	SBUS	Aggregate	Aggregate	Natural Ga	726.8724	16307.82	16307.82	0	10525.11	0	0	0.007384	0.004161	0	0.011544	7.41E-05	1.06E-05	0	8.47E-05	5.39E-05	0.000295
Riverside	2028	UBUS	Aggregate	Aggregate	Gasoline	5.590295	230.9231	230.9231	0	22.36118	0	0	7.75E-05	0	2.63E-05	0.000104	4.94E-07	0	2.58E-08	5.20E-07	7.64E-07	9.80E-06
Riverside	2028	UBUS	Aggregate	Aggregate	Electricity	31.75187	2690.321	0	2690.321	127.0075	5434.3	0	0	0	0	0	0	0	0	0	2.53E-05	5.71E-05
Riverside	2028	UBUS	Aggregate	Aggregate	Natural Ga	367.8927	37374.76	37374.76	0	1471.571	0	0	0.012259	0	0	0.012259	9.24E-06	0	0	9.24E-06	0.000284	0.001586
Riverside	2028	UBUS	Aggregate	Aggregate	Fuel Cell El	0.475911	39.90237	0	39.90237	1.903644	0	5.690389	0	0	0	0	0	0	0	0	2.39E-07	8.47E-07

dard cubic feet (scf) of compressed natural gas (CNG)), kWh/day for Energy Consumption, kg/day for Hydrogen Consumption

PM2.5_TO	PM10_RUN	PM10_IDLE	PM10_STR	PM10_TOT	PM10_PM	PM10_PMI	PM10_TOT	CO2_RUNE	CO2_IDLEX	CO2_STREX	CO2_TOTE	CH4_RUNE	CH4_IDLEX	CH4_STREX	CH4_TOTE	N2O_RUNE	N2O_IDLEX	N2O_STRE	N2O_TOTE	ROG_RUNE	ROG_IDLEX	ROG_STRE
1.38E-05	8.54E-07	0	3.68E-07	1.22E-06	6.83E-06	3.13E-05	3.93E-05	0.747219	0	0.015149	0.762368	6.97E-05	0	4.05E-09	6.97E-05	9.27E-05	0	7.43E-06	0.0001	0.000381	0	1.72E-08
0.298772	0.09742	0.000755	0	0.098176	0.211134	0.434457	0.743767	8320.518	653.8588	0	8974.377	0.003137	0.014461	0	0.017598	2.362663	0.105434	0	2.468097	0.06753	0.311352	0
0.000141	0	0	0	0	0.000222	0.000244	0.000466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.005256	0.000228	7.81E-05	0	0.000306	0.004735	0.010831	0.015872	132.6985	15.87547	0	148.574	0.143414	0.062102	0	0.205515	0.052235	0.003346	0	0.055581	0.001728	0.000716	0
7.81E-06	0	0	0	0	1.21E-05	1.37E-05	2.58E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.140314	0.057083	0	0.005002	0.062085	0.157827	0.124869	0.344781	5990.368	0	171.3402	6161.708	0.104128	0	0.098826	0.202953	0.101426	0	0.03693	0.138356	0.44236	0	0.543232
0.000698	0.000586	0	0	0.000586	0.000254	0.000209	0.001049	8.035083	0	0	8.035083	5.58E-05	0	0	5.58E-05	0.001296	0	0	0.001296	0.001202	0	0
0.006218	0	0	0	0.017939	0.004952	0.022891	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.002792	0.000825	0	0.000121	0.000946	0.005321	0.001692	0.007959	77.18295	0	3.710988	80.89394	0.000347	0	0.001561	0.001908	0.000478	0	0.001352	0.00183	0.00084	0	0.007794
2.33E-05	0	0	0	0	6.75E-05	1.85E-05	8.60E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.013852	0.006014	0	0.000654	0.006668	0.012863	0.012853	0.032384	588.6138	0	18.23635	606.8502	0.021497	0	0.017906	0.039403	0.024793	0	0.005451	0.030244	0.094497	0	0.11545
9.42E-05	9.62E-05	0	0	9.62E-05	3.27E-06	3.72E-06	0.000103	0.171713	0	0	0.171713	6.90E-06	0	0	6.90E-06	2.77E-05	0	0	2.77E-05	0.000149	0	0
0.000257	0	0	0	0.000741	0.000204	0.000945	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000151	3.20E-05	0	3.82E-06	3.59E-05	0.000327	0.000103	0.000466	4.828386	0	0.210123	5.038509	2.16E-05	0	8.68E-05	0.000108	2.98E-05	0	5.72E-05	8.70E-05	5.24E-05	0	0.000437
0.083313	0.030423	0	0.002694	0.033117	0.091066	0.085946	0.21013	4107.853	0	120.195	4228.048	0.059578	0	0.064339	0.123917	0.06728	0	0.024513	0.091794	0.217268	0	0.360144
0.000214	0.000115	0	0	0.000115	0.000178	0.000171	0.000463	7.102589	0	0	7.102589	2.03E-05	0	0	2.03E-05	0.001145	0	0	0.001145	0.000437	0	0
0.002683	0	0	0	0	0.007744	0.002134	0.009877	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.001869	0.000413	0	5.33E-05	0.000467	0.00399	0.001263	0.00572	59.68291	0	2.959354	62.64227	0.000268	0	0.001161	0.001429	0.000369	0	0.000827	0.001195	0.000648	0	0.005847
0.02304	0.000893	0	8.69E-05	0.00098	0.006045	0.058937	0.065962	432.115	2.707757	8.424431	443.2472	0.003442	0.001221	0.011709	0.016372	0.00982	4.40E-05	0.013746	0.02361	0.013298	0.009213	0.060522
0.029177	0.012568	0.000478	0	0.013047	0.006612	0.042977	0.062636	257.2522	2.192944	0	259.4451	0.002104	8.86E-05	0	0.002192	0.041482	0.000354	0	0.041835	0.045293	0.001907	0
0.00017	0	0	0	0	8.71E-05	0.000424	0.000512	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.02E-05	0	0	0	0	5.23E-06	2.55E-05	3.07E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.006608	0.000212	0	1.55E-05	0.000228	0.001512	0.017203	0.018943	114.2043	0.760164	2.033027	116.9975	0.000677	0.000267	0.00313	0.004074	0.002322	9.82E-06	0.003417	0.005749	0.002264	0.001983	0.016278
0.027926	0.007871	0.000445	0	0.008316	0.006876	0.052144	0.067336	301.9645	3.081953	0	305.0465	0.001482	8.26E-05	0	0.001565	0.048691	0.000497	0	0.049188	0.031917	0.001779	0
0.000167	0	0	0	0	7.45E-05	0.000424	0.000498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.02E-05	0	0	0	0	4.57E-06	2.60E-05	3.06E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.001583	0.000438	0	0.000222	0.00066	0.000744	0.002231	0.003635	36.58727	0	2.804352	39.39163	0.031813	0	0.010708	0.042521	0.007015	0	0.00076	0.007775	0.197266	0	0.071443
0.06049	0.0224	0	0.002059	0.02446	0.064024	0.062823	0.151306	3589.513	0	106.3443	3695.857	0.060687	0	0.063409	0.124096	0.070069	0	0.022531	0.092601	0.228047	0	0.386217
0.002353	0.000927	0	0	0.000927	0.002543	0.002373	0.005843	126.0641	0	0	126.0641	0.000141	0	0	0.000141	0.020328	0	0	0.020328	0.003033	0	0
0.001354	0	0	0	0	0.003908	0.001077	0.004984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.001084	0.00026	0	3.38E-05	0.000294	0.002256	0.000715	0.003265	34.08875	0	2.063913	36.15267	0.000153	0	0.000655	0.000808	0.000211	0	0.000488	0.000699	0.00037	0	0.003294
0.000987	5.90E-05	0	2.48E-07	5.93E-05	0.00063	0.002213	0.002903	92.52544	0	0.021113	92.54656	0.000422	0	1.85E-05	0.00044	0.001066	0	2.34E-05	0.001089	0.001671	0	9.25E-05
0.002549	0.002229	0	0	0.002229	0.000356	0.000935	0.00352	21.34132	0	0	21.34132	6.02E-05	0	0	6.02E-05	0.006365	0	0	0.006365	0.001295	0	0
0.002309	0.000124	0	2.86E-05	0.000153	0.001467	0.005146	0.006766	183.1165	1.417927	2.348438	186.8829	0.000862	0.000349	0.00227	0.00348	0.002004	1.15E-05	0.001774	0.003789	0.003384	0.002809	0.012096
0.015984	0.003458	8.13E-05	0	0.003539	0.008511	0.029915	0.041965	739.0281	37.84112	0	776.8693	0.000241	0.000158	0	0.000399	0.280557	0.006102	0	0.286659	0.005187	0.003404	0
0.000109	0	0	0	0	0.000126	0.00022	0.000346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000112	4.88E-06	2.93E-06	0	7.81E-06	7.07E-05	0.000248	0.000327	4.244412	0.739095	0	4.983507	0.003818	0.004331	0	0.008149	0.002333	0.000156	0	0.002488	3.83E-05	3.63E-05	0
4.01E-06	0	0	0	0	4.64E-06	8.13E-06	1.28E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000256	9.50E-06	0	1.04E-06	1.05E-05	0.000167	0.000586	0.000763	22.85808	0.080773	0.131999	23.07086	0.000133	2.05E-05	0.000149	0.000303	0.000316	7.13E-07	0.000132	0.000449	0.000551	0.000159	0.000784
0.000684	0.000358	2.66E-06	0	0.000361	0.000189	0.000832	0.001382	19.01688	0.545236	0	19.56212	5.37E-05	8.68E-06	0	6.24E-05	0.005839	8.79E-05	0	0.005927	0.001156	0.000187	0
1.03E-05	0	0	0	0	1.19E-05	2.09E-05	3.27E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.96E-05	0	3.28E-07	0	3.28E-07	4.69E-05	0.000165	0.000212	0	0.09559	0	0.09559	0	0.000736	0	0.000736	0	2.01E-05	0	2.01E-05	0	5.26E-06	0
4.45E-07	0	0	0	0	5.14E-07	9.04E-07	1.42E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.00039	2.77E-05	0	1.39E-06	2.90E-05	0.000158	0.000926	0.001113	16.92466	1.279017	0.108732	18.31241	0.000215	0.000702	0.000126	0.001043	0.000418	2.42E-05	9.07E-05	0.000533	0.000969	0.005428	0.000753
0.000427	0.000206	7.40E-06	0	0.000213	0.000138	0.000538	0.000889	14.01598	1.319648	0	15.33563	6.17E-05	4.36E-06	0	6.61E-05	0.002517	0.000213	0	0.00273	0.001329	9.38E-05	0
5.89E-06	0	0	0	0	6.31E-06	1.23E-05	1.86E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000433	8.06E-05	1.15E-05	0	9.21E-05	0.000216	0.000842	0.00115	28.42927	3.208437	0	31.63771	0.146125	0.02141	0	0.167535	0.006607	0.000676	0	0.007283	0.00111	0.000164	0
1.11E-05	5.38E-07	0	2.81E-08	5.66E-07	3.05E-06	2.80E-05	3.16E-05	0.573311	0	0.002997	0.576308	1.69E-06	0	2.59E-06	4.28E-06	6.73E-06	0	1.57E-06	8.30E-06	5.20E-06	0	1.56E-05
8.23E-05	0	0	0	0	0.000101	0.000163	0.000264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.00188	9.66E-06	0	0	9.66E-06	0.001138	0.004532	0.005679	62.14954	0	0	62.14954	0.125374	0	0	0.125374	0.015463	0	0	0.015463	0.001347	0	0
1.09E-06	0	0	0	0	9.56E-07	2.42E-06	3.38E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ROG_TOTE	ROG_DIUR	ROG_HOTS	ROG_RUNI	ROG_TOTA	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_TOTE	TOG_DIURI	TOG_HOTS	TOG_RUNL	TOG_TOTA	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	SOx_RUNE	SOx_IDLEX	SOx_STREX	SOx_TOTE	NH3_RUNE	Fuel Consu
0.000381	0.000128	3.18E-05	0.000284	0.000825	0.000555	0	1.88E-08	0.000555	0.000128	3.18E-05	0.000284	0.001	0.011471	0	0.001478	0.012949	3.21E-06	0	6.51E-08	3.27E-06	1.54E-05	0.080597
0.378882	0	0	0	0.378882	0.076878	0.354451	0	0.431329	0	0	0	0.431329	0.226951	4.594145	0	4.821096	0.027955	0.002197	0	0.030152	1.299488	820.4965
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0.002443	0	0	0	0.002443	0.123415	0.051108	0	0.174523	0	0	0	0.174523	0.454269	0.146885	0	0.601154	0	0	0	0	0.136047	17.7523
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.985593	1.225409	0.46335	0.59234	3.266691	0.581102	0	0.594675	1.175777	1.225409	0.46335	0.59234	3.456875	71.37544	0	6.885746	78.26118	0.025728	0	0.000736	0.026464	0.60923	651.4123
0.001202	0	0	0	0.001202	0.001368	0	0	0.001368	0	0	0	0.001368	0.01651	0	0	0.01651	2.70E-05	0	0	2.70E-05	9.85E-05	0.73462
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.008634	0.010559	0.003144	0.003477	0.025814	0.001226	0	0.008534	0.00976	0.010559	0.003144	0.003477	0.026939	0.134217	0	0.066102	0.20032	0.000331	0	1.59E-05	0.000347	0.008475	8.552062
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.209947	0.237351	0.070915	0.137033	0.655247	0.131436	0	0.126394	0.257829	0.237351	0.070915	0.137033	0.703129	8.247394	0	1.208552	9.455946	0.002528	0	7.83E-05	0.002606	0.056133	64.15586
0.000149	0	0	0	0.000149	0.000169	0	0	0.000169	0	0	0	0.000169	0.001107	0	0	0.001107	5.77E-07	0	0	5.77E-07	1.27E-06	0.015699
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000489	0.000241	7.07E-05	6.95E-05	0.00087	7.65E-05	0	0.000478	0.000554	0.000241	7.07E-05	6.95E-05	0.000935	0.008447	0	0.003717	0.012164	2.07E-05	0	9.02E-07	2.16E-05	0.000549	0.532668
0.577412	0.520682	0.155653	0.314607	1.568354	0.302622	0	0.394289	0.696912	0.520682	0.155653	0.314607	1.687853	42.518	0	4.202247	46.72025	0.017643	0	0.000516	0.018159	0.361684	446.9868
0.000437	0	0	0	0.000437	0.000498	0	0	0.000498	0	0	0	0.000498	0.004599	0	0	0.004599	2.39E-05	0	0	2.39E-05	6.89E-05	0.649365
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.006495	0.003238	0.000977	0.000977	0.011687	0.000946	0	0.006401	0.007347	0.003238	0.000977	0.000977	0.01254	0.104354	0	0.049805	0.154159	0.000256	0	1.27E-05	0.000269	0.006792	6.622505
0.083033	0.076642	0.016177	0.091387	0.267239	0.019404	0.013443	0.066264	0.099111	0.076642	0.016177	0.091387	0.283318	0.957905	0.087972	0.774115	1.819992	0.001856	1.16E-05	3.62E-05	0.001904	0.034002	46.85985
0.0472	0	0	0	0.0472	0.051563	0.002171	0	0.053735	0	0	0	0.053735	0.191943	0.015807	0	0.20775	0.000865	7.37E-06	0	0.000872	0.098524	23.72018
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.020526	0.012131	0.00257	0.016294	0.051521	0.003304	0.002894	0.017823	0.02402	0.012131	0.00257	0.016294	0.055016	0.280463	0.022007	0.214019	0.516489	0.000491	3.26E-06	8.73E-06	0.000502	0.008507	12.36891
0.033696	0	0	0	0.033696	0.036336	0.002025	0	0.038361	0	0	0	0.038361	0.072711	0.014746	0	0.087457	0.001015	1.04E-05	0	0.001026	0.117742	27.88936
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.268708	0.165103	0.24979	0.256898	0.940498	0.241514	0	0.07772	0.319233	0.165103	0.24979	0.256898	0.991023	2.113348	0	0.484691	2.59804	0.000157	0	1.20E-05	0.000169	0.001671	4.164461
0.614264	0.50578	0.123346	0.326624	1.570015	0.326823	0	0.42285	0.749673	0.50578	0.123346	0.326624	1.705423	34.49157	0	3.495209	37.98678	0.015417	0	0.000457	0.015873	0.251436	390.7239
0.003033	0	0	0	0.003033	0.003453	0	0	0.003453	0	0	0	0.003453	0.069891	0	0	0.069891	0.000424	0	0	0.000424	0.000985	11.52561
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.003664	0.002148	0.000643	0.00067	0.007126	0.000541	0	0.003606	0.004147	0.002148	0.000643	0.00067	0.007608	0.059516	0	0.028046	0.087562	0.000146	0	8.86E-06	0.000155	0.003882	3.82204
0.001764	0.026844	0.005921	0.000149	0.034677	0.002439	0	0.000101	0.00254	0.026844	0.005921	0.000149	0.035454	0.044849	0	0.001982	0.046831	0.000397	0	9.07E-08	0.000397	0.002364	9.78397
0.001295	0	0	0	0.001295	0.001475	0	0	0.001475	0	0	0	0.001475	0.005555	0	0	0.005555	7.17E-05	0	0	7.17E-05	0.003517	1.951164
0.018289	0.00785	0.00152	0.013206	0.040865	0.004938	0.004099	0.013244	0.02228	0.00785	0.00152	0.013206	0.044857	0.081699	0.040175	0.254793	0.376667	0.000786	6.09E-06	1.01E-05	0.000803	0.005502	19.75715
0.008591	0	0	0	0.008591	0.005905	0.003875	0	0.00978	0	0	0	0.00978	0.02761	0.13568	0	0.16329	0.002483	0.000127	0	0.00261	0.154323	71.0265
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.45E-05	0	0	0	7.45E-05	0.002733	0.002592	0	0.005324	0	0	0	0.005324	0.010113	0.00517	0	0.015284	0	0	0	0	0.006244	0.595452
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.001494	0.002317	0.000421	0.000933	0.005166	0.000804	0.000232	0.000859	0.001895	0.002317	0.000421	0.000933	0.005566	0.013881	0.001229	0.015465	0.030575	9.82E-05	3.47E-07	5.67E-07	9.91E-05	0.000625	2.439038
0.001343	0	0	0	0.001343	0.001316	0.000213	0	0.001529	0	0	0	0.001529	0.003746	0.002962	0	0.006708	6.39E-05	1.83E-06	0	6.57E-05	0.003213	1.788498
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.26E-06	0	0	0	5.26E-06	0	0.000376	0	0.000376	0	0	0	0.000376	0	0.000559	0	0.000559	0	0	0	0	0.00414	0.011422
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.007149	0.00137	0.000264	0.00083	0.009613	0.001414	0.00792	0.000824	0.010158	0.00137	0.000264	0.00083	0.012622	0.019719	0.041966	0.016961	0.078646	7.27E-05	5.49E-06	4.67E-07	7.87E-05	0.000889	1.935977
0.001423	0	0	0	0.001423	0.001513	0.000107	0	0.00162	0	0	0	0.00162	0.003391	0.002266	0	0.005657	4.71E-05	4.43E-06	0	5.15E-05	0.001401	1.402084
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.001273	0	0	0	0.001273	0.079275	0.011687	0	0.090962	0	0	0	0.090962	0.259142	0.019989	0	0.279132	0	0	0	0	0.019055	3.780219
2.08E-05	4.91E-06	1.05E-06	2.92E-06	2.97E-05	7.59E-06	0	1.71E-05	2.47E-05	4.91E-06	1.05E-06	2.92E-06	3.36E-05	9.02E-05	0	0.000232	0.000323	5.68E-06	0	2.97E-08	5.71E-06	1.15E-05	0.060927
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.001347	0	0	0	0.001347	0.096219	0	0	0.096219	0	0	0	0.096219	1.230235	0	0	1.230235	0	0	0	0	0.039963	7.425913
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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CASE NUMBER:
PLN24-05264

PM DESIGN GROUP GREEN BEE CONTRACTOR YARD TRAFFIC IMPACT ANALYSIS

City of Perris

September 11, 2026

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

CASE NUMBER: PLN24-05264

PM DESIGN GROUP GREEN BEE CONTRACTOR YARD TRAFFIC IMPACT ANALYSIS

City of Perris

September 11, 2026

prepared by

Bryan Crawford
Giancarlo Ganddini, PE, PTP



GANDDINI GROUP, INC.
555 Parkcenter Drive, Suite 225
Santa Ana, California 92705
(714) 795-3100 | ganddini.com

Project No. 19760

TABLE OF CONTENTS

EXECUTIVE SUMMARY IV

1. INTRODUCTION 1

Project Description 1
Scope of Analysis 1
Study Area 1
Analysis Scenarios 2

2. METHODOLOGY 5

Level of Service Analytical Methodology (Non-CEQA) 5
Intersection Delay Methodology 5
Performance Standards 5
Substantial Operational Deficiency Criteria 6
Vehicle Miles Traveled Analytical Methodology (CEQA) 6

3. EXISTING CONDITIONS 7

Existing Roadway System 7
General Plan Context 7
Truck Routes 7
Transit Service 7
Bicycle and Pedestrian Facilities 7
Existing Intersection Volumes 7
Existing Levels of Service 8
Existing Traffic Signal Warrant Analysis 8

4. PROJECT TRIP FORECASTS 19

Project Site Relocation Characteristics 19
Project Trip Generation 19
Existing Site 19
Truck Trips 19
Project Trip Distribution and Assignment 20
Site Access 20

5. FUTURE VOLUME FORECASTS 42

Cumulative Trips 42
Ambient Growth Rate 42
Other Development 42
Analysis Scenario Volume Forecasts 42
Existing Plus Ambient Growth With Project 42
Existing Plus Ambient Growth & Cumulative Trips With Project 42

6. FUTURE OPERATIONAL ANALYSIS 53

Existing Plus Ambient Growth With Project 53
Existing Plus Ambient Growth & Cumulative Traffic With Project 54
Development Impact Fee 54
Fair Share Analysis 54

7. SITE ACCESS ASSESSMENT AND CIRCULATION 58

Project Design Features 58
Project Access 58
Types of Trucks Used On-Site 59

On-Site Parking 60
On-Site Truck Circulation 60
Truck Turning Templates 60
Driveway Spacing Analysis 60
Conceptual Signing/Striping Plans 61

8. VEHICLES MILES TRAVELED (VMT) 70

Background 70
VMT Assessment and Screening 70

9. CONCLUSIONS 71

Project Trip Generation 71
Levels of Service/Operational Analysis Findings (Non-CEQA) 71
VMT Analysis Findings (CEQA) 72

Appendices

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Volume Count Worksheets
Appendix D Level of Service Worksheets
Appendix E Traffic Signal Warrant Worksheet
Appendix F Sherman Road Conceptual Signing/Striping Plan

List of Tables

Table 1. Existing Levels of Service 9
Table 2. Survey Site Inbound Trips Generated Summary 21
Table 3. Survey Site Outbound Trips Generated Summary 24
Table 4. Survey Site Inbound and Outbound Pedestrian Trips Generated Summary 27
Table 5. Survey Site Inbound Trips Generated Summary – With On-Street Employee Parking 30
Table 6. Survey Site Outbound Trips Generated Summary – With On-Street Employee Parking 33
Table 7. Existing Site Trip Generation 36
Table 8. Project Trips Generated 37
Table 9. Other Development Trip Generation 43
Table 10. Existing Plus Ambient Growth With Project Intersection Level of Service 55
Table 11. Existing Plus Ambient Growth & Cumulative Traffic With Project Intersection Levels of Service 56
Table 12. Fair Share Analysis 57

List of Figures

Figure 1. Project Location Map 3
Figure 2. Site Plan 4
Figure 3. Existing Lane Geometry and Intersection Traffic Controls 10
Figure 4. City of Perris General Plan Circulation Element 11
Figure 5. City of Perris General Plan Roadway Cross-Sections 12
Figure 6. City of Perris General Plan Truck Routes 13
Figure 7. Existing Transit Routes 14
Figure 8. City of Perris Bicycle Facilities Master Plan 15
Figure 9. Existing Pedestrian Facilities 16
Figure 10. Existing (PCE-Adjusted) AM Peak Hour Intersection Turning Movement Volumes 17
Figure 11. Existing (PCE-Adjusted) PM Peak Hour Intersection Turning Movement Volumes 18
Figure 12. Project Trip Distribution – Passenger Cars 38

Figure 13. Project Trip Distribution - Trucks 39
Figure 14. Project AM Peak Hour Intersection Turning Movement Volumes 40
Figure 15. Project PM Peak Hour Intersection Turning Movement Volumes 41
Figure 16. Other Development Location Map 46
Figure 17. Other Development AM Peak Hour Intersection Turning Movement Volumes 47
Figure 18. Other Development PM Peak Hour Intersection Turning Movement Volumes 48
Figure 19. Existing Plus Ambient Growth With Project AM Peak Hour Intersection Turning Movement Volumes 49
Figure 20. Existing Plus Ambient Growth With Project PM Peak Hour Intersection Turning Movement Volumes 50
Figure 21. Existing Plus Ambient Growth & Cumulative Traffic With Project AM Peak Hour Intersection Turning Movement Volumes 51
Figure 22. Existing Plus Ambient Growth & Cumulative Traffic With Project PM Peak Hour Intersection Turning Movement Volumes 52
Figure 23. Parking Designations 62
Figure 24. Internal On-Site Truck Circulation 63
Figure 25. Alternative Internal On-Site Truck Circulation 64
Figure 26. Internal Inbound Truck Parking Turning Template 65
Figure 27. Internal Outbound Truck Parking Turning Template 66
Figure 28. Truck Turning Template - Inbound 67
Figure 29. Truck Turning Template - Outbound 68
Figure 30. Sherman Road Driveway Spacing 69

EXECUTIVE SUMMARY

The purpose of this study is to evaluate the potential for transportation impacts resulting from development of the proposed project both in the context of the City of Perris' discretionary authority for conformance with locally established operational standards and the California Environmental Quality Act (CEQA). Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with terms related to transportation engineering.

This study was prepared in consultation with City of Perris staff and in accordance with the procedures and methodologies for assessing transportation impacts established by the City of Perris. To assess the project's conformance with local operational standards, this study evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. For CEQA purposes, this study also evaluates the significance of project-related transportation impacts as measured by vehicle miles traveled (VMT) relative to thresholds established by the City of Perris as the lead agency and, if necessary, identifies any feasible mitigation measures to mitigate any significant impacts.

Project Description

The project is located between Highway 74 and Ethanac Road west of Sherman Road, addressed at 25775 Sherman Road, in the City of Perris. The project site is currently vacant. The project APN's are 329-240-031 and 329-240-028.

The 5.4-acre project site is proposed to develop a commercial contractor yard with a 25,450 square foot building, 150 parking spaces, 29 truck parking spaces, a 43,470 square foot lumber yard with covered shade structures, and a detention basin in the Light Industrial (LI) Zone. The project is proposing one access driveway to Sherman Road. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2028.

The current and proposed operations do not involve concrete processing/batching. The lumber yard is non-commercial and the contractor's yard will include offices. The outside yard operations stack and store Timberstrand form boards, some dimensional lumber, and stakes. Job site packages including lumber and hardware, are loaded onto delivery trucks with fork lifts, and lumber delivery trucks leave the yard to go out to different job sites. There are 12 job site delivery trucks that go out each day loaded by three fork lifts. There are two table saws that cut stakes and dimensional lumber. All wood waste is recycled in a 40-yard bin, with minimal saw dust. There are no generators in the yard. HVAC units will be provided as necessary for the office building. There are six (6) equipment transport trucks that leave the yard in the morning and come back in the afternoon. There are six (6) concrete pump trucks that also leave in the morning and come back in the evening.

The working hours are Monday through Friday from 7:00 AM to approximately 4:00 PM. There are anticipated to be 15 office employees (8:00 AM to 5:00 PM), 5 mechanics (8:00 AM to 5:00 PM), and 15 yard employees (6:00 AM to 3:00 PM).

Existing Conditions

The study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions, except for the following study intersection that currently operates at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

Existing Traffic Signal Warrant Analysis

The peak hour traffic signal warrant (Warrant 3) is satisfied at the currently unsignalized intersection of Sherman Road at Ethanac Road [#4] based on the Existing volumes. It is noted that the signal warrant minor street volume criteria is satisfied primarily due to the heavy volume from the southbound right turn movement, which alone would generally not be recommended for installation of a traffic signal. All other turning movement volumes from the minor street approaches (excluding the southbound right turn) would not satisfy the peak hour volume criteria.

Project Trip Generation

The proposed project is forecast to generate 340 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 37 vehicle trips during the PM peak hour. The proposed project is forecast to generate approximately 426 daily PCE trips, including 44 PCE trips during the AM peak hour and 49 PCE trips during the PM peak hour.

Levels of Service/Operational Analysis Findings (Non-CEQA)

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth With Project conditions, except for the following study intersection that is forecast to continue operating at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

The following measure is recommended to address the project's direct impact:

Corrective Measure #1
Prior to certificate of occupancy, if a traffic signal has not been installed at the intersection of Sherman Road at Ethanac Road, the project shall install NO LEFT TURN, 4 PM – 6 PM, MON – FRI signage at the northbound approach, subject to approval by the City of Menifee.

The study intersection of Sherman Road at Ethanac Road [#4], specifically the northbound approach within City of Menifee jurisdiction, is forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth With Project conditions, with implementation of the recommended corrective measure.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth & Cumulative Traffic With Project, except for the following study intersection that is forecast to continue operating at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

The following improvements are recommended to maintain acceptable Levels of Service for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions:

- Sherman Road (NS) at Ethanac Road (EW) - #4
  - Install traffic signal
  - Restripe southbound shared left/through/right turn lane to shared left/through lane
  - Construct southbound right turn lane
  - Construct eastbound left turn lane
  - Restripe eastbound shared left/through/right turn lane to shared through/right turn lane

The study intersection of Sherman Road at Ethanac Road [#4] is forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions, with improvements.

VMT Analysis Findings (CEQA)

The *PM Design Group Green Bee Contractor Yard (PLN-24-05264) Vehicles Miles Traveled Screening Assessment* (Ganddini Group, May 27, 2026) provides a VMT Screening Assessment for the proposed development. The Screening Assessment concluded that: "The proposed project satisfies the City-established VMT screening criteria for projects with net daily trips less than 500 ADT; therefore, the project is exempt from preparation of a detailed VMT analysis and may be presumed to result in a less than significant VMT impact." This document was approved via the *Green Bee Contractor Yard Project (PLN 24-05264) Traffic Submittal Review #3, City of Perris* (RK Engineering Group Inc., May 29, 2026), and no further analysis is required.

1. INTRODUCTION

This section introduces the proposed project and the general scope of the analysis.

PROJECT DESCRIPTION

The project is located between Highway 74 and Ethanac Road west of Sherman Road, addressed at 25775 Sherman Road, in the City of Perris. The project site is currently vacant. The project APN's are 329-240-031 and 329-240-028. Figure 1 shows the project location map.

The 5.4-acre project site is proposed to develop a commercial contractor yard with a 25,450 square foot building, 150 parking spaces, 29 truck parking spaces, a 43,470 square foot lumber yard with covered shade structures, and a detention basin in the Light Industrial (LI) Zone. The project is proposing one access driveway to Sherman Road. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2028. Figure 2 illustrates the project site plan.

The current and proposed operations do not involve concrete processing/batching. The lumber yard is non-commercial and the contractor's yard will include offices. The outside yard operations stack and store Timberstrand form boards, some dimensional lumber, and stakes. Job site packages including lumber and hardware, are loaded onto delivery trucks with fork lifts, and lumber delivery trucks leave the yard to go out to different job sites. There are 12 job site delivery trucks that go out each day loaded by three fork lifts. There are two table saws that cut stakes and dimensional lumber. All wood waste is recycled in a 40-yard bin, with minimal saw dust. There are no generators in the yard. HVAC units will be provided as necessary for the office building. There are six (6) equipment transport trucks that leave the yard in the morning and come back in the afternoon. There are six (6) concrete pump trucks that also leave in the morning and come back in the evening.

The working hours are Monday through Friday from 7:00 AM to approximately 4:00 PM. There are anticipated to be 15 office employees (8:00 AM to 5:00 PM), 5 mechanics (8:00 AM to 5:00 PM), and 15 yard employees (6:00 AM to 3:00 PM).

SCOPE OF ANALYSIS

The scope of this analysis was determined in consultation with City of Perris staff as documented in the City-approved scoping agreement provided in Appendix B.

Study Area

Based on the study intersections identified in the approved scoping agreement, the study area consists of the following study intersections within City of Perris, City of Menifee, and California Department of Transportation jurisdictions:

Study Intersections[1]	Jurisdiction[2]
1. Sherman Road (NS) at Highway 74 (EW)	Caltrans
2. Sherman Road (NS) at Project Driveway (EW)	City of Perris/Menifee
3. Sherman Road (NS) at Harrison Avenue (EW)	City of Perris/Menifee
4. Sherman Road (NS) at Ethanac Road (EW)	City of Perris/Menifee

Notes:
1. (NS) = North-South roadway; (EW) = East-West roadway
2. Caltrans = California Department of Transportation

Analysis Scenarios

The following scenarios are analyzed for weekday AM and PM peak hour conditions:

- Existing (2026)
- Existing Plus Ambient Growth (2028)
- Existing Plus Ambient Growth With Project (2028)
- Existing Plus Ambient Growth & Cumulative Traffic With Project (2028)



Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

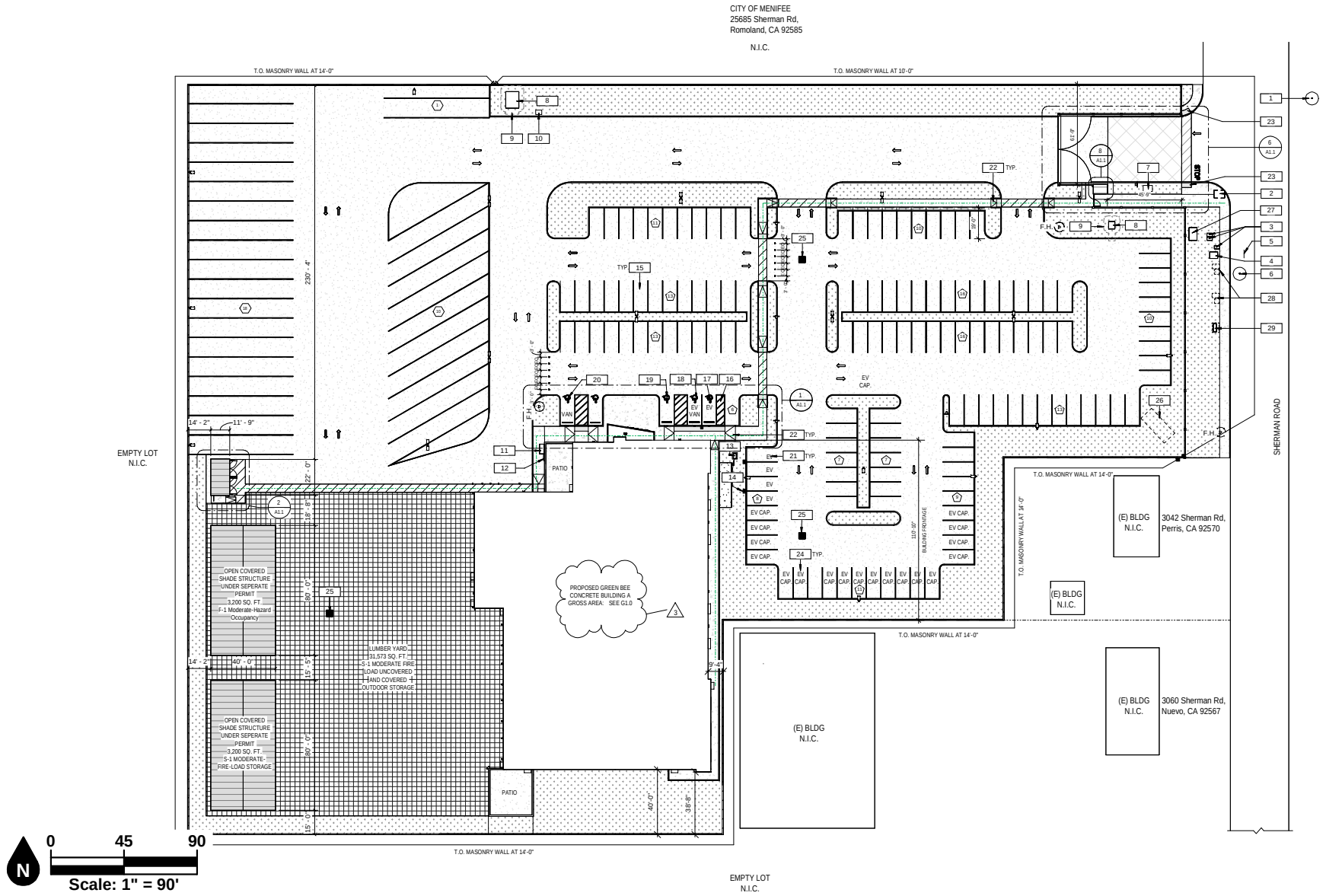


Figure 2
Site Plan

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies.

LEVEL OF SERVICE ANALYTICAL METHODOLOGY (NON-CEQA)

Level of Service analysis is performed for assessing conformance with General Plan and operational standards established by the applicable agencies. In accordance with current CEQA provisions, a project's effect on automobile delay (as measured by Level of Service) shall not constitute a significant environmental impact.

Intersection Delay Methodology

The technique used to assess the performance of intersections is known as the intersection delay methodology based on the procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 7th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst individual movement (or movements sharing a single lane). Intersection parameters were applied as stated within the City of Perris *Transportation Impact Analysis Guidelines for Level of Service and Vehicle Miles Traveled*, April 2026. Intersection delay and Level of Service calculations were performed using the Vistro software.

Performance Standards

The City of Perris has established the following target Levels of Service:

- 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.

- LOS "E" may be allowed within the boundaries of the Perris 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.

Substantial Operational Deficiency Criteria

The following criteria are used to determine whether a project causes a substantial operational deficiency and should be required to provide improvements or corrective measures.

In the City of Perris, the following performance criteria shall be used to identify operational deficiencies as either project-related or cumulative traffic impacts, and to classify them as direct or indirect:

- A project-related traffic impact is considered direct when a study intersection operates at an acceptable Level of Service for existing conditions (without the project) and the addition of project traffic causes the intersection to degrade to an unacceptable Level of Service under Existing Plus Ambient Growth With Project conditions. Improvements shall be identified to restore the intersection's Level of Service to an acceptable level.

- A project-related traffic impact is considered direct when a study intersection operates at an unacceptable Level of Service for existing conditions (without the project) and the addition of project traffic causes the intersection delay to increase under Existing Plus Ambient Growth With Project conditions. Improvements shall be identified to offset the project's impact at the intersection to pre-project conditions. At the discretion of the city, the project may be fully responsible for constructing improvements to restore the intersection's Level of Service to an acceptable level.

- A cumulative traffic impact is considered indirect when a study intersection operates at an acceptable Level of Service for Existing Plus Ambient Growth & Cumulative Traffic With Project and the addition of any project traffic causes the intersection to degrade further, unless the intersection's impact was previously determined to be a direct project impact. Improvements shall be identified to restore the intersection's Level of Service to an acceptable level and the Project shall be responsible for its proportionate Fair Share contribution toward the required improvements. At the discretion of the city, the project may be fully responsible for constructing improvements to restore the intersection's Level of Service to an acceptable level.

If a project is forecast to result in a substantial operational deficiency, recommended corrective measures are identified that would reduce the project's effect to a level that does not exceed the specified deficiency criteria. Corrective measures can be in many forms, including the construction of physical improvements (e.g., addition of travel lanes, traffic control modifications, etc.) or the implementation of transportation demand management measures.

VEHICLE MILES TRAVELED ANALYTICAL METHODOLOGY (CEQA)

The metric used to evaluate the transportation impact of land use and transportation projects under CEQA is known as vehicle miles traveled (VMT). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. Additional information and a detailed project assessment is provided in the Vehicle Miles Traveled section presented later in this report.

3. EXISTING CONDITIONS

This section describes the existing transportation setting in the project vicinity.

EXISTING ROADWAY SYSTEM

Figure 3 identifies the lane geometry and intersection traffic controls for Existing conditions based on a field survey of the study area. Regional access to the project site is provided by the Interstate 215 (I-215) Freeway located approximately 0.45 miles west of the project site. Key roadways providing local circulation include Sherman Road, Highway 74 (SR-74), Harrison Avenue, and Ethanac Road.

GENERAL PLAN CONTEXT

Figure 4 shows the City of Perris General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Perris standard roadway cross-sections are illustrated on Figure 5.

TRUCK ROUTES

The City of Perris General Plan truck routes are illustrated on Figure 6. Existing truck routes in the project vicinity are shown on Figure 6. There are currently no designated truck routes near the project site. Therefore, all trucks will need to proceed north on Sherman Road from the project site to Highway 74 (SR-74), as Highway 74 (SR-74) is a designated truck route under California Department of Transportation (Caltrans) jurisdiction.

TRANSIT SERVICE

Figure 7 shows Existing public transit facilities and routes in the project vicinity. As shown on Figure 7, the study area is currently served by the Riverside Transit Agency (RTA) Route 28 near the project site along Highway 74 (SR-74), Sherman Road, and Jackson Avenue. There is a bus stop located on the southeast corner of the intersection of Sherman Road and Jackson Avenue north of the project site.

BICYCLE AND PEDESTRIAN FACILITIES

The City of Perris Bicycle Facilities Master Plan is illustrated on Figure 8. There are currently no existing bicycle lanes along Sherman Road adjacent to the project site. Ethanac Road is proposed for Class II Bike Lanes.

Existing pedestrian facilities in the project vicinity are shown on Figure 9. Sidewalks are not currently provided on Sherman Road along the project site frontage.

EXISTING INTERSECTION VOLUMES

Figure 10 and Figure 11 show the Existing AM and PM peak hour intersection turning movement volumes. Existing peak hour intersection volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in June 2026 during typical weekday conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest total volume and may vary at other intersections.

The intersection movement counts separated trucks and cars by axle. A passenger car equivalent (PCE) factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axel trucks was applied to the intersection movement counts. These PCE factors are from the City of Perris *Transportation Impact Analysis Guidelines for Level of Service and Vehicle Miles Traveled*, April 2026. Intersection turning movement count worksheets are provided in Appendix C.

EXISTING LEVELS OF SERVICE

The intersection Levels of Service for Existing conditions are shown in Table 1. Existing intersection Level of Service calculation worksheets are provided in Appendix D.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions, except for the following study intersection that currently operates at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

EXISTING TRAFFIC SIGNAL WARRANT ANALYSIS

The need for a traffic control signal at the currently unsignalized study intersection of Sherman Road at Ethanac Road [#4] has been evaluated based on the peak hour traffic signal warrant criteria (Warrant 3) from the California Manual on Uniform Traffic Control Devices (2026). Traffic signal warrant analysis worksheets are provided in Appendix E.

The peak hour traffic signal warrant (Warrant 3) is satisfied at the currently unsignalized intersection of Sherman Road at Ethanac Road [#4] based on the Existing volumes.

It is noted that the signal warrant minor street volume criteria is satisfied primarily due to the heavy volume from the southbound right turn movement, which alone would generally not be recommended for installation of a traffic signal. All other turning movement volumes from the minor street approaches (excluding the southbound right turn) would not satisfy the peak hour volume criteria.

Table 1
Existing Intersection Levels of Service

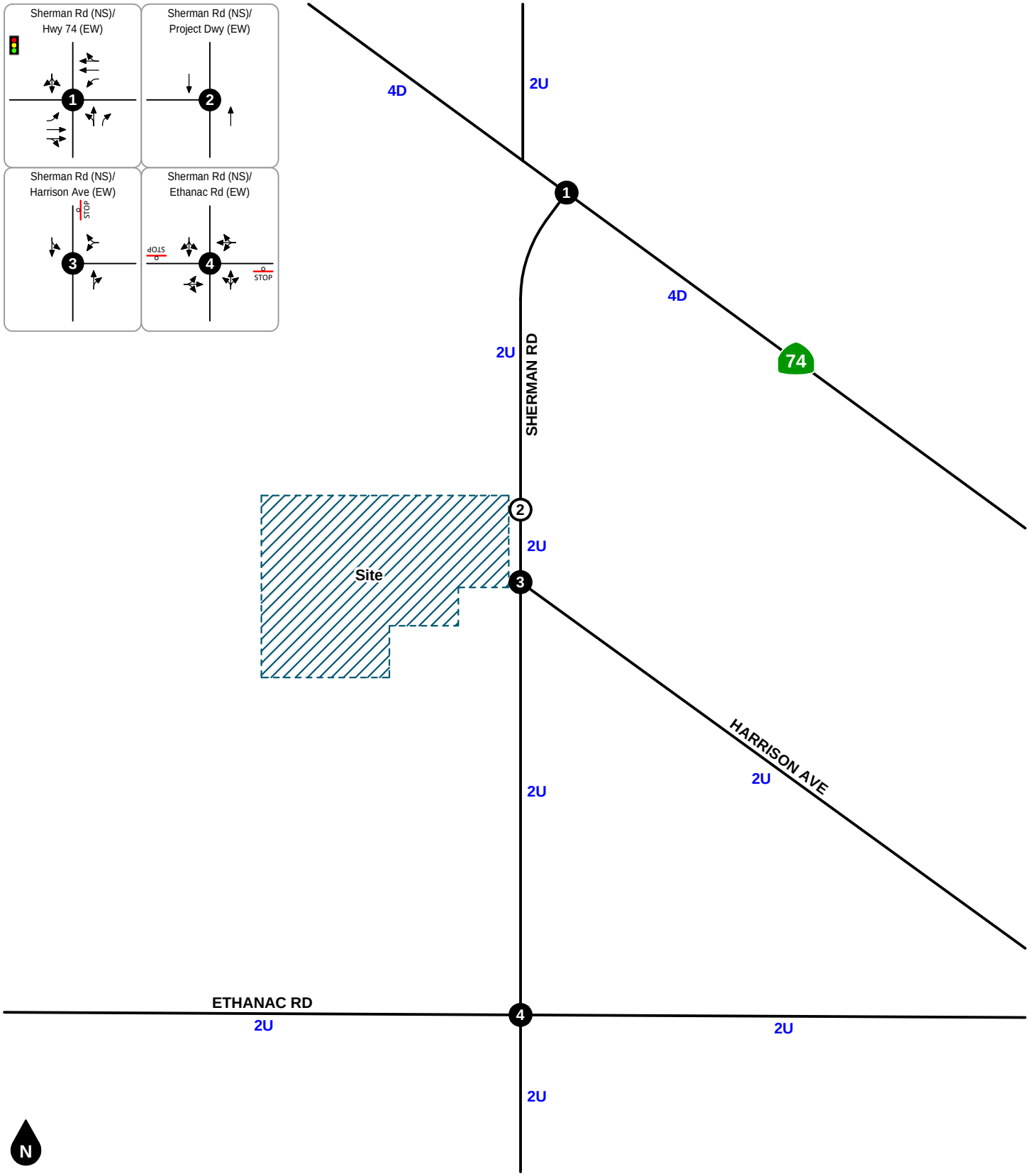
Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Sherman Rd at Hwy 74	TS	11.9	B	15.9	B
2. Sherman Rd at Project Dwy	CSS	0.0	A	0.0	A
3. Sherman Rd at Harrison Ave	CSS	9.5	A	9.8	A
4. Sherman Rd at Ethanac Rd	CSS	27.2	D	35.2	E

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service



Legend

- Traffic Signal
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- Project Driveway

Figure 3
Existing Lane Geometry and Intersection Traffic Controls

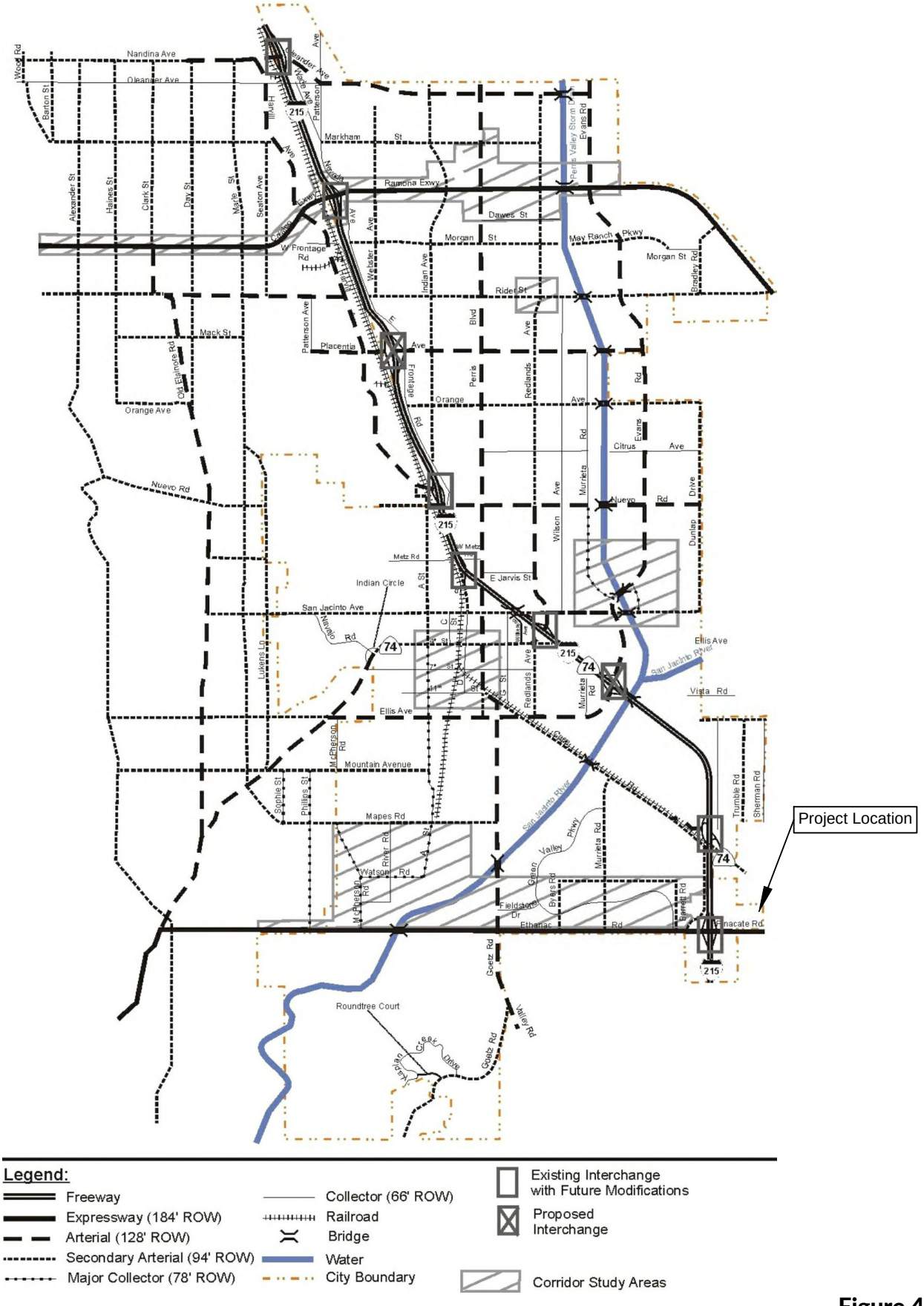
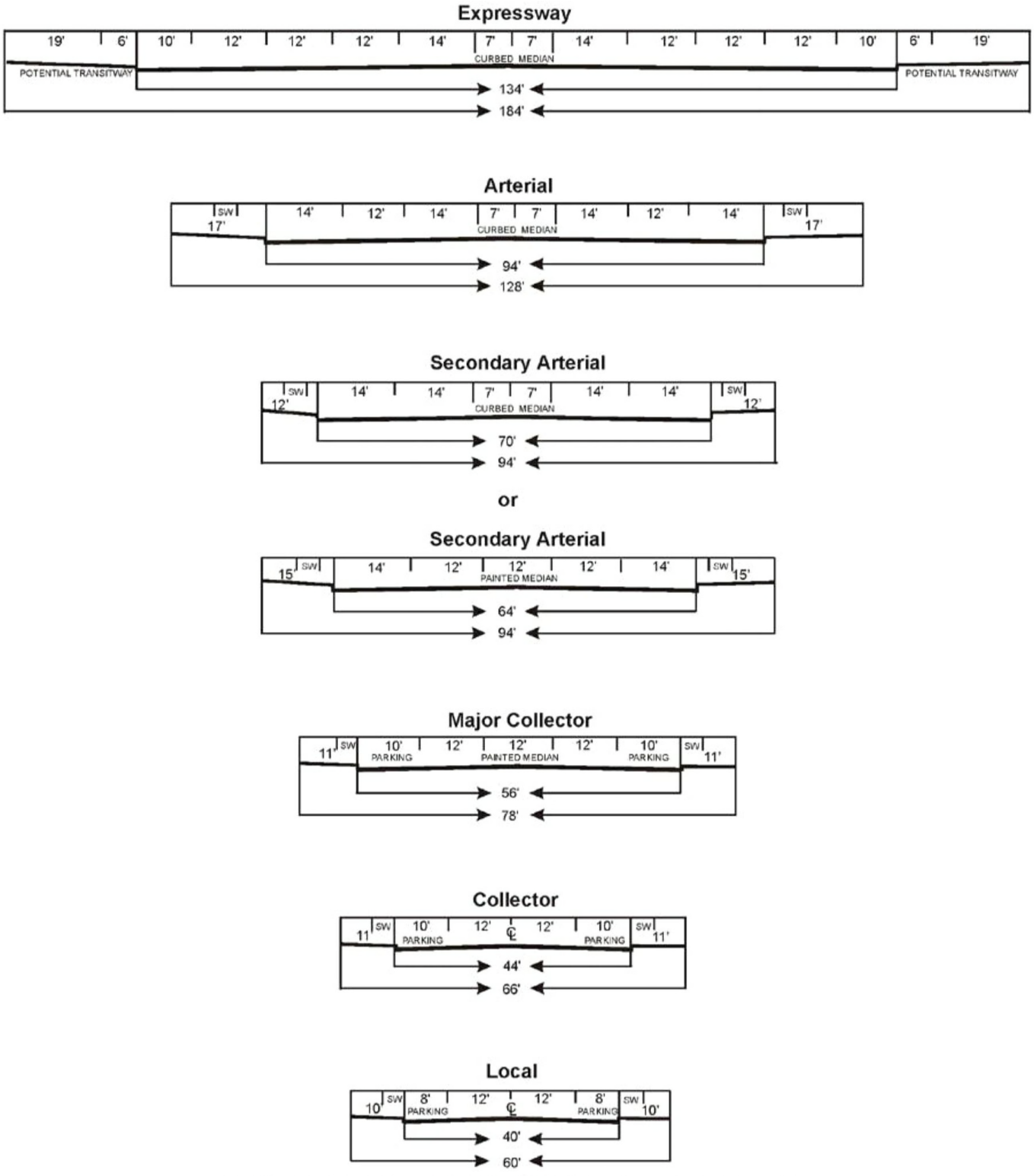


Figure 4
City of Perris General Plan Circulation Element

Source: City of Perris



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		

Figure 5
City of Perris General Plan Roadway Cross-Sections

Source: City of Perris

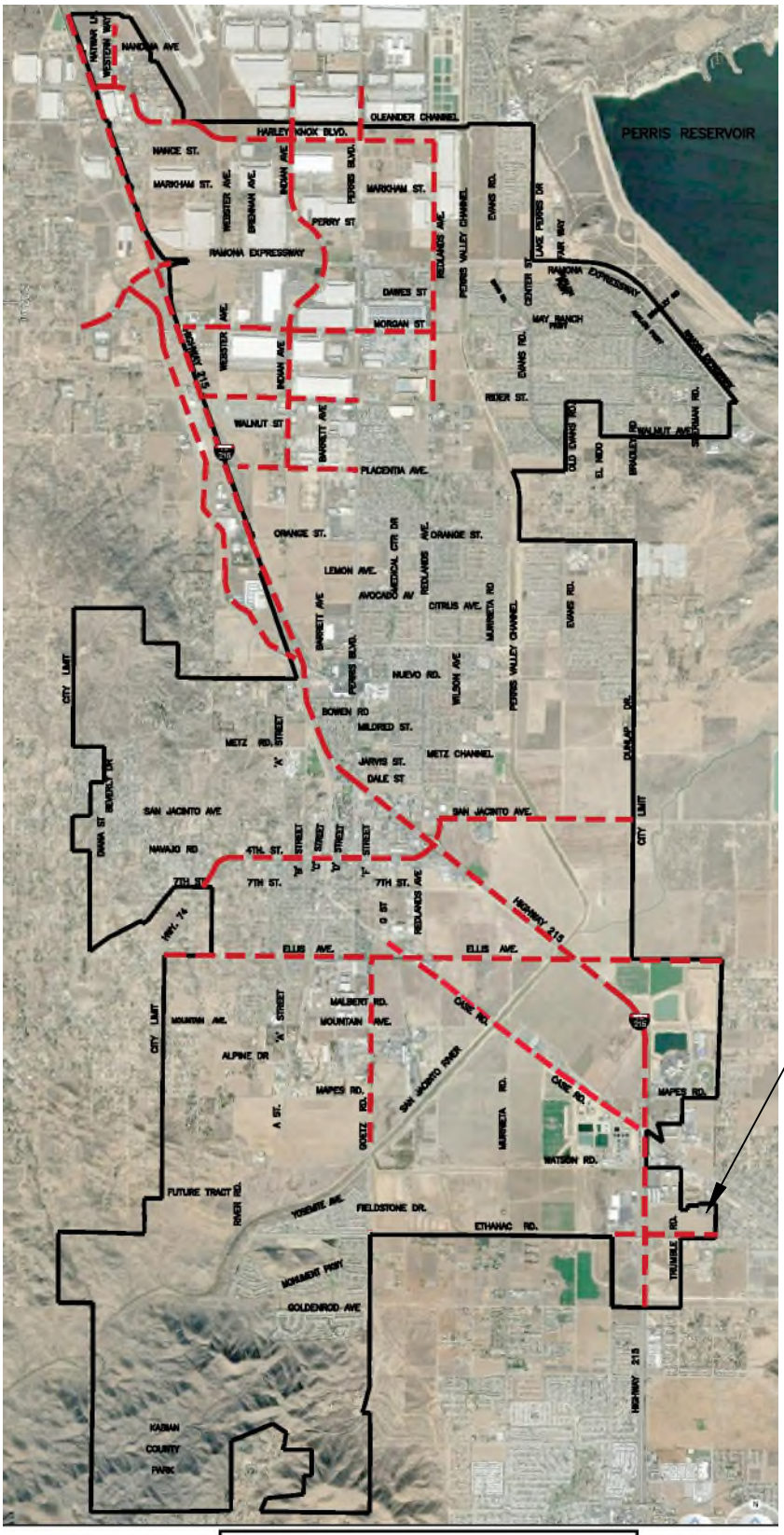


Figure 6
City of Perris General Plan Truck Routes

Source: City of Perris

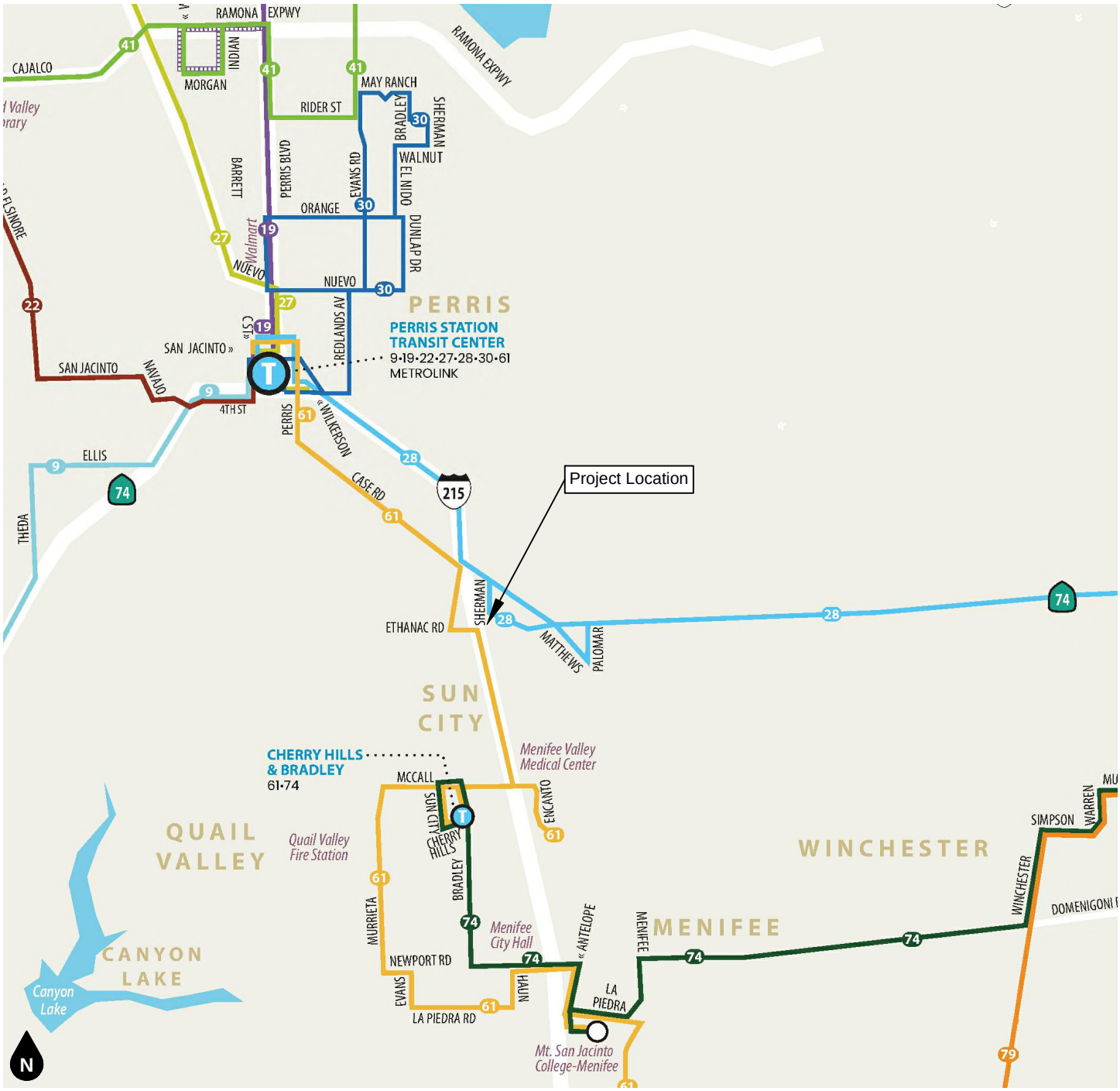


Figure 7
Existing Transit Routes

Source: Riverside Transit Agency

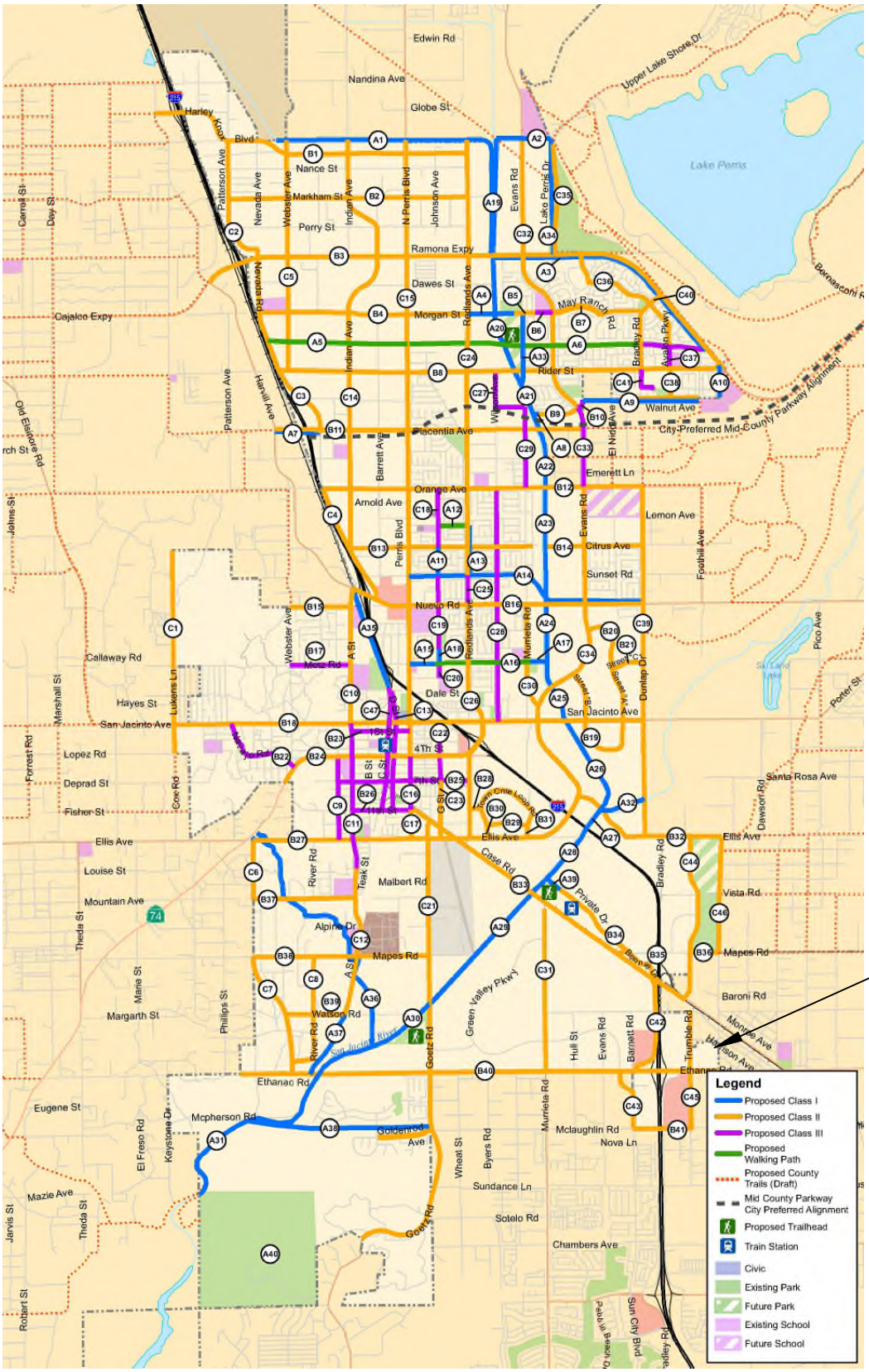


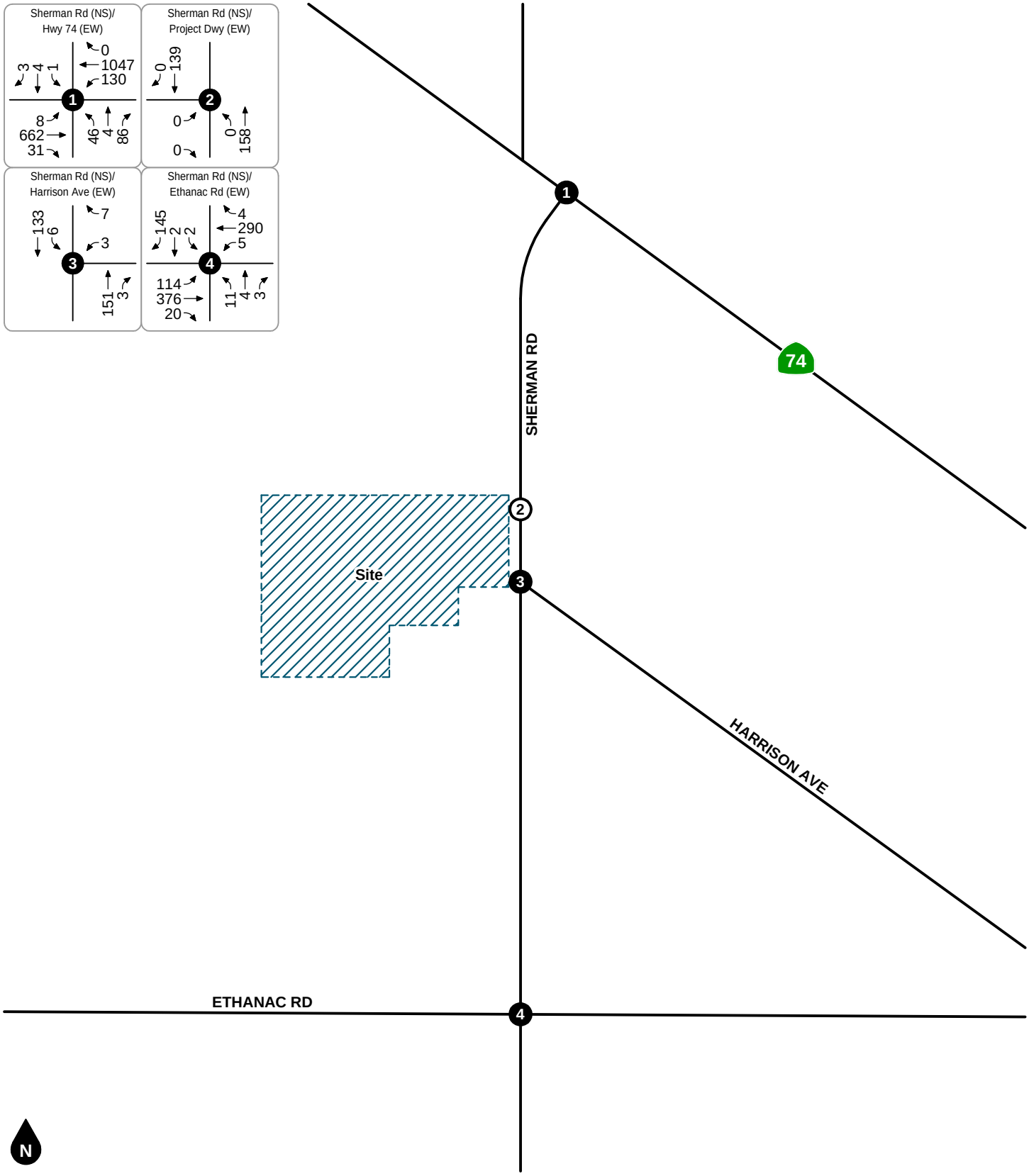
Figure 8
City of Perris Bicycle Facilities Master Plan

Source: City of Perris



Legend
- Sidewalk
- Cross Walk

Figure 9
Existing Pedestrian Facilities

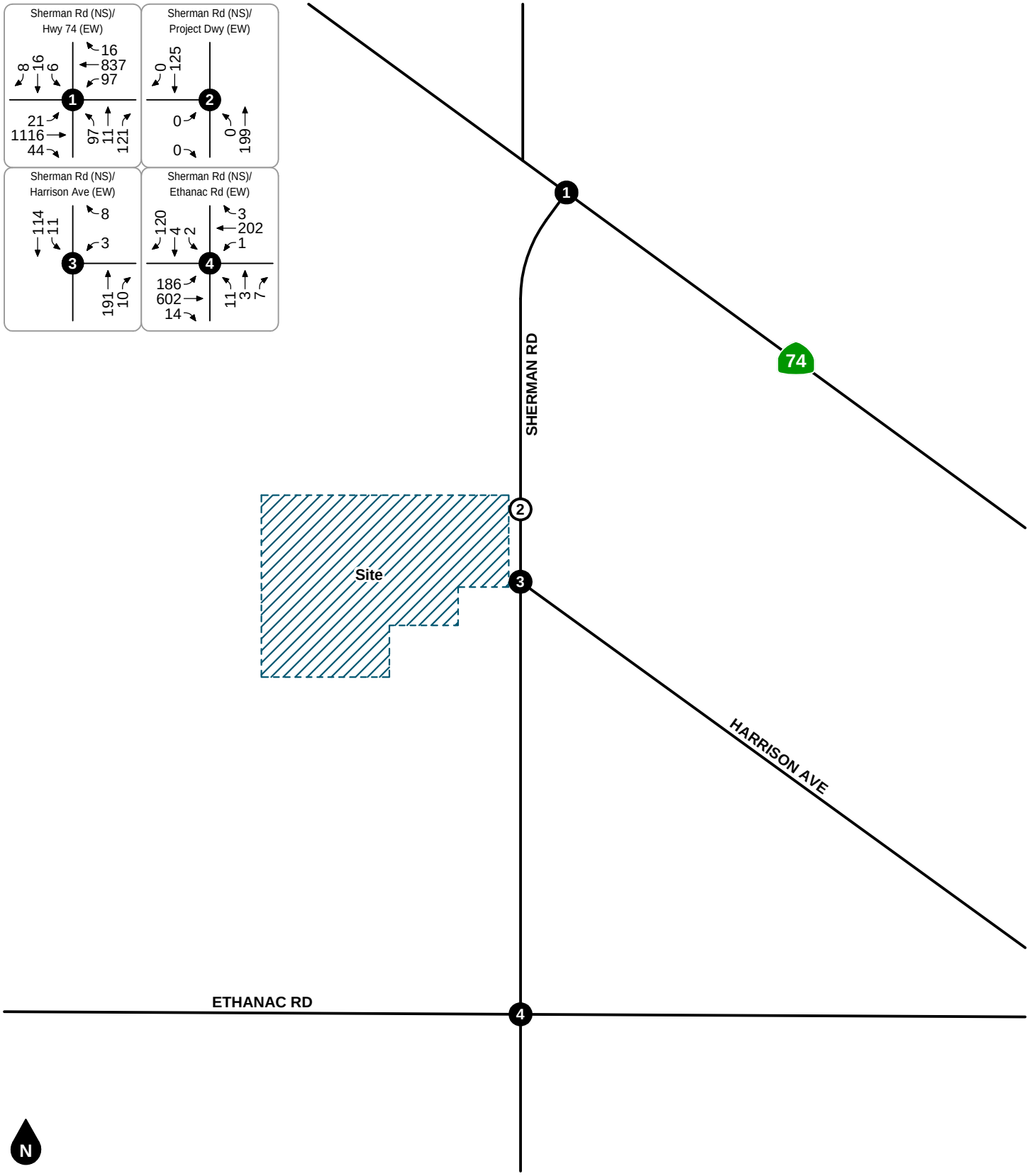


Legend

Study Intersection

(#) Project Driveway

Figure 10
Existing (PCE-Adjusted)
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

(#) Project Driveway

Figure 11
Existing (PCE-Adjusted)
PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated on figures contained in this section.

PROJECT SITE RELOCATION CHARACTERISTICS

The existing site at 18890 Seaton Avenue, Perris, California 92570 will be closed and moved to the proposed project site. Although the new proposed project site is larger, which includes additional building square footage and on-site parking spaces, the operations are expected to remain consistent. The project applicant is not anticipating any additional growth because of maximized current market dynamics, and the purpose of the move is mostly due to limited space at their current facility to handle existing operations. The number of employees and number of customers is not anticipated to be increased when moving to the new project site. The additional on-site parking spaces will allow employees and customers to park on-site instead of on-street which is currently occurring on their existing site. Also, additional parking spaces can be used for temporary on-site storage of materials. Attachment A includes an operation letter.

Thus, the project trip generation is expected to match the existing trip generation surveyed at the 18890 Seaton Avenue, Perris, California 92570 location.

PROJECT TRIP GENERATION

Existing Site

Traffic counts at the existing facility located at 18890 Seaton Avenue, Perris, California 92570 were conducted on three typical weekdays (Wednesday, February 25, 2026, Thursday, March 19, 2026, and Tuesday, March 24, 2026). These traffic counts were conducted in 15-minute intervals over a 24-hour period. Existing traffic counts are included in Appendix C.

Table 2 and Table 3 show the inbound and outbound trips generated at the existing facility. Field observations during the traffic count on Wednesday, February 25, 206 indicated that there was a substantial number of vehicles parking along Seaton Avenue and accessing the site. As a result, pedestrian traffic counts were included for Thursday, March 19, 2026, and Tuesday, March 24, 2026, traffic counts. Table 4 shows these pedestrian counts.

Table 5 and Table 6 show the inbound and outbound trips generated with on-street employee parking. These tables equated one pedestrian trip as one vehicle trip to provide for a conservative analysis, even though many of these trips most likely involved carpooling. Thus, the existing trips with on-street parking may overestimate the actual existing trip generation.

Table 7 shows the existing site trip generation. As shown on Table 7, the existing site with on-street parking currently generates 340 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 37 vehicle trips during the PM peak hour.

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips. Truck trips were converted to PCE trips based on the following factors from the City of Perris *Transportation Impact Analysis Guidelines for Level of Service and Vehicle Miles Traveled*, April 2026: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with four or more axles.

As also shown in Table 8, this equates to 426 daily PCE trips, including 44 PCE trips during the AM peak hour and 49 PCE trips during the PM peak hour.

Project Trip Distribution and Assignment

Figure 12 shows the forecast project trip distribution patterns for passenger cars. Figure 13 shows the forecast directional distribution patterns for the project generated truck trips. The project trip distribution patterns were developed using engineering judgment in consultation with City of Perris staff and are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity.

Project AM and PM peak hour intersection turning movement volumes expected from the project are depicted on Figure 14 and Figure 15, respectively.

Site Access

This analysis assumes the following improvements will be constructed by the project and adjacent properties to provide project site access, as necessary:

- Sherman Road (NS) at Project Driveway (EW) [Study Intersection #2]
  - Construct one inbound lane and one outbound lane with eastbound stop-control for auto and truck access
  - Northbound: one shared through/left turn lane
  - Southbound: one shared through/right turn lane
  - Eastbound: one shared left/right turn lane

Table 2 (1 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	2	0	0	0	2
3:30 AM - 3:45 AM	4	0	0	0	4	0	0	0	0	0	3	0	0	0	3	3	0	0	0	3
3:45 AM - 4:00 AM	4	0	0	0	4	0	0	1	0	1	2	0	0	0	2	2	0	1	0	3
4:00 AM - 4:15 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2
4:15 AM - 4:30 AM	2	0	0	0	2	5	0	0	0	5	1	0	0	0	1	3	0	0	0	3
4:30 AM - 4:45 AM	1	0	0	0	1	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2
4:45 AM - 5:00 AM	5	0	0	0	5	2	2	0	0	4	3	0	0	0	3	4	1	0	0	5
5:00 AM - 5:15 AM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	1	1	0	0	2
5:15 AM - 5:30 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2
5:30 AM - 5:45 AM	0	0	0	0	0	1	1	0	0	2	3	0	0	0	3	2	1	0	0	3
5:45 AM - 6:00 AM	4	0	0	0	4	2	0	0	0	2	2	1	0	0	3	3	1	0	0	4
6:00 AM - 6:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
6:15 AM - 6:30 AM	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
6:30 AM - 6:45 AM	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
6:45 AM - 7:00 AM	4	2	0	0	6	7	0	0	0	7	9	1	0	0	10	7	1	0	0	8
7:00 AM - 7:15 AM	3	0	1	0	4	5	0	0	0	5	3	0	0	0	3	4	0	1	0	5
7:15 AM - 7:30 AM	2	0	0	0	2	1	1	0	0	2	5	0	0	0	5	3	1	0	0	4
7:30 AM - 7:45 AM	3	0	1	0	4	5	0	0	0	5	1	0	0	0	1	3	0	1	0	4
7:45 AM - 8:00 AM	6	1	0	0	7	1	0	0	0	1	7	0	0	0	7	5	1	0	0	6
8:00 AM - 8:15 AM	2	1	0	0	3	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:15 AM - 8:30 AM	4	0	0	0	4	5	1	0	0	6	0	0	0	0	0	3	1	0	0	4
8:30 AM - 8:45 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
8:45 AM - 9:00 AM	0	1	1	0	2	3	0	0	0	3	1	0	0	0	1	2	1	1	0	4

Table 2 (2 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	3	1	0	0	4	2	1	0	0	3	2	1	0	0	3	3	1	0	0	4
9:15 AM - 9:30 AM	2	0	0	0	2	3	0	2	0	5	1	0	0	0	1	2	0	1	0	3
9:30 AM - 9:45 AM	1	1	0	0	2	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2
9:45 AM - 10:00 AM	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	1	0	0	0	1	1	0	0	1	2	2	0	0	0	2	2	0	0	1	3
10:45 AM - 11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
11:00 AM - 11:15 AM	0	0	1	0	1	1	0	0	0	1	1	0	0	0	1	1	0	1	0	2
11:15 AM - 11:30 AM	1	2	0	0	3	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
11:45 AM - 12:00 PM	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	2	1	0	0	3
12:00 PM - 12:15 PM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
12:15 PM - 12:30 PM	1	0	0	0	1	1	0	1	0	2	3	0	0	0	3	2	0	1	0	3
12:30 PM - 12:45 PM	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2	1	0	1	0	2
12:45 PM - 1:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2	1	1	1	1	4
1:00 PM - 1:15 PM	2	1	0	0	3	0	0	0	1	1	1	0	0	0	1	1	1	0	1	3
1:15 PM - 1:30 PM	4	1	1	0	6	2	1	0	1	4	0	0	0	1	1	2	1	1	1	5
1:30 PM - 1:45 PM	0	0	0	0	0	4	0	0	0	4	0	1	1	0	2	2	1	1	0	4
1:45 PM - 2:00 PM	2	0	0	0	2	4	1	0	0	5	0	1	0	0	1	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	1	2	2	0	0	4	1	1	1	0	3
2:15 PM - 2:30 PM	1	1	1	1	4	0	0	0	0	0	1	0	1	0	2	1	1	1	1	4
2:30 PM - 2:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2
2:45 PM - 3:00 PM	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	1	1	0	0	2
3:00 PM - 3:15 PM	1	0	0	0	1	1	0	2	0	3	0	2	1	0	3	1	1	1	0	3
3:15 PM - 3:30 PM	1	0	0	0	1	1	1	1	0	3	1	2	0	1	4	1	1	1	1	4
3:30 PM - 3:45 PM	0	0	1	0	1	3	1	0	1	5	2	0	0	0	2	2	1	1	1	5
3:45 PM - 4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
4:00 PM - 4:15 PM	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	1	1	1	0	3
4:15 PM - 4:30 PM	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1
4:45 PM - 5:00 PM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	1	1	1	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	1	0	1	1	3
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	1	0	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1

Table 2 (3 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:30 PM - 6:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:45 PM - 7:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
11:45 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
Daily	84	19	11	2	116	90	23	10	5	128	87	17	9	4	117	87	20	10	4	121
AM Peak Hour*	7:00 AM - 8:00 AM															15	2	2	0	19
PM Peak Hour*	4:15 PM - 5:15 PM															3	2	3	1	9

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 3 (1 of 3)
Survey Site Outbound Trips Generated Summary

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	2
3:45 AM - 4:00 AM	0	1	0	1	2	0	2	0	1	3	0	0	0	0	0	0	1	0	1	2
4:00 AM - 4:15 AM	0	0	0	2	2	0	0	0	0	0	1	2	0	0	3	1	1	0	1	3
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
4:30 AM - 4:45 AM	0	1	1	0	2	0	1	0	1	2	0	0	2	0	2	0	1	1	1	3
4:45 AM - 5:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
5:00 AM - 5:15 AM	1	0	1	0	2	1	2	0	0	3	0	1	0	0	1	1	1	1	0	3
5:15 AM - 5:30 AM	0	2	0	0	2	0	1	3	0	4	1	2	3	0	6	1	2	2	0	5
5:30 AM - 5:45 AM	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	1	0	2
5:45 AM - 6:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	2
6:00 AM - 6:15 AM	2	0	1	0	3	1	2	1	0	4	0	2	1	0	3	1	2	1	0	4
6:15 AM - 6:30 AM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
6:30 AM - 6:45 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
6:45 AM - 7:00 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	1	1	0	0	2
7:00 AM - 7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
7:15 AM - 7:30 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	1	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:00 AM - 8:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8:15 AM - 8:30 AM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3

Table 3 (2 of 3)
Survey Site Outbound Trips Generated Summary

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	2	0	1	0	3	0	2	0	0	2	1	0	0	0	1	1	1	1	0	3
9:15 AM - 9:30 AM	0	1	0	0	1	1	1	1	0	3	2	1	0	0	3	1	1	1	0	3
9:30 AM - 9:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:45 AM - 10:00 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
10:00 AM - 10:15 AM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
10:45 AM - 11:00 AM	1	0	0	0	1	1	0	1	0	2	1	0	0	0	1	1	0	1	0	2
11:00 AM - 11:15 AM	2	0	0	0	2	1	1	0	0	2	2	0	0	0	2	2	1	0	0	3
11:15 AM - 11:30 AM	2	0	0	0	2	2	1	0	0	3	2	0	0	0	2	2	1	0	0	3
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	0	2	2	0	0	0	2	2	0	1	0	3
11:45 AM - 12:00 PM	2	0	0	0	2	2	0	0	1	3	1	0	0	0	1	2	0	0	1	3
12:00 PM - 12:15 PM	2	0	0	0	2	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
12:15 PM - 12:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
12:30 PM - 12:45 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	0	0	0	1
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	0	1
1:00 PM - 1:15 PM	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
1:15 PM - 1:30 PM	4	0	0	0	4	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2
1:30 PM - 1:45 PM	4	0	0	0	4	3	0	1	0	4	0	0	0	1	1	3	0	1	1	5
1:45 PM - 2:00 PM	1	1	0	0	2	1	0	0	0	1	2	0	0	0	2	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
2:15 PM - 2:30 PM	0	0	0	0	0	4	0	0	0	4	1	1	0	0	2	2	1	0	0	3
2:30 PM - 2:45 PM	5	1	1	0	7	2	1	0	0	3	2	0	0	0	2	3	1	1	0	5
2:45 PM - 3:00 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3
3:00 PM - 3:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
3:15 PM - 3:30 PM	3	0	0	0	3	6	0	0	0	6	3	0	0	0	3	4	0	0	0	4
3:30 PM - 3:45 PM	2	0	0	0	2	7	1	0	0	8	8	1	0	0	9	6	1	0	0	7
3:45 PM - 4:00 PM	4	0	0	0	4	12	0	0	0	12	7	0	0	0	7	8	0	0	0	8
4:00 PM - 4:15 PM	7	0	0	0	7	5	0	0	0	5	2	0	0	0	2	5	0	0	0	5
4:15 PM - 4:30 PM	3	0	0	0	3	4	0	0	0	4	1	2	0	0	3	3	1	0	0	4
4:30 PM - 4:45 PM	5	0	0	0	5	4	1	0	0	5	5	0	0	0	5	5	1	0	0	6
4:45 PM - 5:00 PM	2	0	0	0	2	3	1	0	0	4	5	0	0	0	5	4	1	0	0	5
5:00 PM - 5:15 PM	6	0	0	0	6	6	0	0	0	6	5	0	0	0	5	6	0	0	0	6
5:15 PM - 5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	1	0	0	0	1	6	0	0	0	6	3	0	0	0	3
5:45 PM - 6:00 PM	2	0	0	0	2	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3

Table 3 (3 of 3)
Survey Site Outbound Trips Generated Summary

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
7:00 PM - 7:15 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
7:15 PM - 7:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Daily	84	19	7	3	113	92	23	12	3	130	82	18	10	4	114	86	20	10	4	120
AM Peak Hour*	7:00 AM - 8:00 AM															4	4	1	0	9
PM Peak Hour*	4:15 PM - 5:15 PM															18	3	0	0	21

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 4 (1 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue			Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians
12:00 AM - 12:15 AM	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0
1:30 AM - 1:45 AM	0	0	0	0	0	0
1:45 AM - 2:00 AM	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0
3:15 AM - 3:30 AM	1	0	1	0	0	0
3:30 AM - 3:45 AM	2	1	2	0	0	0
3:45 AM - 4:00 AM	1	0	1	0	0	0
4:00 AM - 4:15 AM	0	0	0	0	0	0
4:15 AM - 4:30 AM	0	1	1	0	0	0
4:30 AM - 4:45 AM	1	0	1	0	0	0
4:45 AM - 5:00 AM	5	5	5	0	0	0
5:00 AM - 5:15 AM	0	3	2	0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0	0
5:30 AM - 5:45 AM	0	4	2	0	1	1
5:45 AM - 6:00 AM	2	2	2	0	0	0
6:00 AM - 6:15 AM	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	2	1	0	0	0
6:45 AM - 7:00 AM	7	10	9	1	0	1
7:00 AM - 7:15 AM	8	2	5	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0
8:30 AM - 8:45 AM	1	0	1	1	0	1
8:45 AM - 9:00 AM	3	2	3	0	0	0

Table 4 (2 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
9:00 AM - 9:15 AM	1	1	1
9:15 AM - 9:30 AM	0	3	2
9:30 AM - 9:45 AM	0	0	0
9:45 AM - 10:00 AM	5	3	4
10:00 AM - 10:15 AM	1	0	1
10:15 AM - 10:30 AM	1	1	1
10:30 AM - 10:45 AM	0	0	0
10:45 AM - 11:00 AM	0	0	0
11:00 AM - 11:15 AM	0	1	1
11:15 AM - 11:30 AM	1	2	2
11:30 AM - 11:45 AM	1	0	1
11:45 AM - 12:00 PM	0	0	0
12:00 PM - 12:15 PM	1	0	1
12:15 PM - 12:30 PM	0	2	1
12:30 PM - 12:45 PM	2	0	1
12:45 PM - 1:00 PM	0	0	0
1:00 PM - 1:15 PM	0	0	0
1:15 PM - 1:30 PM	2	2	2
1:30 PM - 1:45 PM	2	0	1
1:45 PM - 2:00 PM	0	0	0
2:00 PM - 2:15 PM	0	0	0
2:15 PM - 2:30 PM	0	0	0
2:30 PM - 2:45 PM	0	0	0
2:45 PM - 3:00 PM	1	0	1
3:00 PM - 3:15 PM	0	0	0
3:15 PM - 3:30 PM	0	0	0
3:30 PM - 3:45 PM	0	1	1
3:45 PM - 4:00 PM	0	0	0
4:00 PM - 4:15 PM	0	0	0
4:15 PM - 4:30 PM	0	0	0
4:30 PM - 4:45 PM	1	0	1
4:45 PM - 5:00 PM	0	0	0
5:00 PM - 5:15 PM	0	0	0
5:15 PM - 5:30 PM	0	0	0
5:30 PM - 5:45 PM	0	0	0
5:45 PM - 6:00 PM	0	0	0

Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Pedestrians	Pedestrians	Pedestrians
0	3	2
3	0	2
1	3	2
2	0	1
1	1	1
0	0	0
2	1	2
0	0	0
2	3	3
0	0	0
0	0	0
0	0	0
0	1	1
1	1	1
0	0	0
1	0	1
4	4	4
1	0	1
0	0	0
0	0	0
2	2	2
1	0	1
0	3	2
1	0	1
3	2	3
2	1	2
15	13	14
0	0	0
1	0	1
0	0	0
1	1	1
0	3	2
4	1	3
1	1	1
1	2	2
0	0	0

Table 4 (3 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue			Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians
6:00 PM - 6:15 PM	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0
7:00 PM - 7:15 PM	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0
8:00 PM - 8:15 PM	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0
11:30 PM - 11:45 PM	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	0
Daily	50	48	49	52	47	50

Table 5 (1 of 3)
Survey Site Outbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
3:15 AM - 3:30 AM	1	0	0	0	1	2	0	0	0	2	5	0	0	0	5	3	0	0	0	3
3:30 AM - 3:45 AM	6	0	0	0	6	2	0	0	0	2	5	0	0	0	5	5	0	0	0	5
3:45 AM - 4:00 AM	5	0	0	0	5	1	0	1	0	2	3	0	0	0	3	3	0	1	0	4
4:00 AM - 4:15 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2
4:15 AM - 4:30 AM	3	0	0	0	3	6	0	0	0	6	2	0	0	0	2	4	0	0	0	4
4:30 AM - 4:45 AM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
4:45 AM - 5:00 AM	10	0	0	0	10	7	2	0	0	9	8	0	0	0	8	9	1	0	0	10
5:00 AM - 5:15 AM	2	0	0	0	2	3	2	0	0	5	4	0	0	0	4	3	1	0	0	4
5:15 AM - 5:30 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2
5:30 AM - 5:45 AM	2	0	0	0	2	3	1	0	0	4	5	0	0	0	5	4	1	0	0	5
5:45 AM - 6:00 AM	6	0	0	0	6	4	0	0	0	4	4	1	0	0	5	5	1	0	0	6
6:00 AM - 6:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
6:15 AM - 6:30 AM	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
6:30 AM - 6:45 AM	5	0	0	0	5	3	0	0	0	3	1	0	0	0	1	3	0	0	0	3
6:45 AM - 7:00 AM	13	2	0	0	15	16	0	0	0	16	18	1	0	0	19	16	1	0	0	17
7:00 AM - 7:15 AM	8	0	1	0	9	10	0	0	0	10	8	0	0	0	8	9	0	1	0	10
7:15 AM - 7:30 AM	2	0	0	0	2	1	1	0	0	2	5	0	0	0	5	3	1	0	0	4
7:30 AM - 7:45 AM	3	0	1	0	4	5	0	0	0	5	1	0	0	0	1	3	0	1	0	4
7:45 AM - 8:00 AM	6	1	0	0	7	1	0	0	0	1	7	0	0	0	7	5	1	0	0	6
8:00 AM - 8:15 AM	2	1	0	0	3	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:15 AM - 8:30 AM	4	0	0	0	4	5	1	0	0	6	0	0	0	0	0	3	1	0	0	4
8:30 AM - 8:45 AM	5	0	0	0	5	1	0	0	0	1	1	0	0	0	1	3	0	0	0	3
8:45 AM - 9:00 AM	3	1	1	0	5	6	0	0	0	6	4	0	0	0	4	5	1	1	0	7

Table 5 (2 of 3)
Survey Site Outbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	4	1	0	0	5	3	1	0	0	4	3	1	0	0	4	4	1	0	0	5
9:15 AM - 9:30 AM	4	0	0	0	4	5	0	2	0	7	3	0	0	0	3	4	0	1	0	5
9:30 AM - 9:45 AM	1	1	0	0	2	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2
9:45 AM - 10:00 AM	5	0	0	0	5	5	0	0	0	5	6	0	0	0	6	6	0	0	0	6
10:00 AM - 10:15 AM	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
10:15 AM - 10:30 AM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	1	0	0	0	1	1	0	0	1	2	2	0	0	0	2	2	0	0	1	3
10:45 AM - 11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
11:00 AM - 11:15 AM	1	0	1	0	2	2	0	0	0	2	2	0	0	0	2	2	0	1	0	3
11:15 AM - 11:30 AM	3	2	0	0	5	2	1	0	0	3	3	0	0	0	3	3	1	0	0	4
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	1	3	1	0	0	0	1	1	0	1	1	3
11:45 AM - 12:00 PM	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	2	1	0	0	3
12:00 PM - 12:15 PM	3	0	0	0	3	4	0	0	0	4	3	0	0	0	3	4	0	0	0	4
12:15 PM - 12:30 PM	2	0	0	0	2	2	0	1	0	3	4	0	0	0	4	3	0	1	0	4
12:30 PM - 12:45 PM	3	0	0	0	3	1	0	0	0	1	2	0	1	0	3	2	0	1	0	3
12:45 PM - 1:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2	1	1	1	1	4
1:00 PM - 1:15 PM	2	1	0	0	3	0	0	0	1	1	1	0	0	0	1	1	1	0	1	3
1:15 PM - 1:30 PM	6	1	1	0	8	4	1	0	1	6	2	0	0	1	3	4	1	1	1	7
1:30 PM - 1:45 PM	1	0	0	0	1	5	0	0	0	5	1	1	1	0	3	3	1	1	0	5
1:45 PM - 2:00 PM	2	0	0	0	2	4	1	0	0	5	0	1	0	0	1	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	1	2	2	0	0	4	1	1	1	0	3
2:15 PM - 2:30 PM	1	1	1	1	4	0	0	0	0	0	1	0	1	0	2	1	1	1	1	4
2:30 PM - 2:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2
2:45 PM - 3:00 PM	1	1	0	0	2	2	1	0	0	3	1	1	0	0	2	2	1	0	0	3
3:00 PM - 3:15 PM	1	0	0	0	1	1	0	2	0	3	0	2	1	0	3	1	1	1	0	3
3:15 PM - 3:30 PM	1	0	0	0	1	1	1	1	0	3	1	2	0	1	4	1	1	1	1	4
3:30 PM - 3:45 PM	1	0	1	0	2	4	1	0	1	6	3	0	0	0	3	3	1	1	1	6
3:45 PM - 4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
4:00 PM - 4:15 PM	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	1	1	1	0	3
4:15 PM - 4:30 PM	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
4:30 PM - 4:45 PM	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
4:45 PM - 5:00 PM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	1	1	1	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	1	0	1	1	3
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	1	0	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1

Table 5 (3 of 3)
Survey Site Outbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:30 PM - 6:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:45 PM - 7:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
11:45 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
Daily	133	19	11	2	174	139	23	10	5	186	136	17	9	4	166	136	20	10	4	170
AM Peak Hour*	7:00 AM - 8:00 AM															20	2	2	0	24
PM Peak Hour*	4:15 PM - 5:15 PM															4	2	3	1	10

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 6 (1 of 3)
Survey Site Outbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	2
3:45 AM - 4:00 AM	0	1	0	1	2	0	2	0	1	3	0	0	0	0	0	0	1	0	1	2
4:00 AM - 4:15 AM	0	0	0	2	2	0	0	0	0	0	1	2	0	0	3	1	1	0	1	3
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
4:30 AM - 4:45 AM	0	1	1	0	2	0	1	0	1	2	0	0	2	0	2	0	1	1	1	3
4:45 AM - 5:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
5:00 AM - 5:15 AM	1	0	1	0	2	1	2	0	0	3	0	1	0	0	1	1	1	1	0	3
5:15 AM - 5:30 AM	0	2	0	0	2	0	1	3	0	4	1	2	3	0	6	1	2	2	0	5
5:30 AM - 5:45 AM	1	1	0	0	2	1	0	1	0	2	1	1	0	0	2	1	1	1	0	3
5:45 AM - 6:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	2
6:00 AM - 6:15 AM	2	0	1	0	3	1	2	1	0	4	0	2	1	0	3	1	2	1	0	4
6:15 AM - 6:30 AM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
6:30 AM - 6:45 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
6:45 AM - 7:00 AM	1	0	0	0	1	1	2	0	0	3	2	0	0	0	2	2	1	0	0	3
7:00 AM - 7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
7:15 AM - 7:30 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	1	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:00 AM - 8:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8:15 AM - 8:30 AM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2
8:30 AM - 8:45 AM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
8:45 AM - 9:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3

Table 6 (2 of 3)
Survey Site Outbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	4	0	1	0	5	2	2	0	0	4	3	0	0	0	3	3	1	1	0	5
9:15 AM - 9:30 AM	2	1	0	0	3	3	1	1	0	5	4	1	0	0	5	3	1	1	0	5
9:30 AM - 9:45 AM	2	1	0	0	3	2	0	0	0	2	2	0	0	0	2	2	1	0	0	3
9:45 AM - 10:00 AM	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2
10:00 AM - 10:15 AM	1	0	0	0	1	3	0	0	0	3	2	0	0	0	2	2	0	0	0	2
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
10:45 AM - 11:00 AM	1	0	0	0	1	1	0	1	0	2	1	0	0	0	1	1	0	1	0	2
11:00 AM - 11:15 AM	5	0	0	0	5	4	1	0	0	5	5	0	0	0	5	5	1	0	0	6
11:15 AM - 11:30 AM	2	0	0	0	2	2	1	0	0	3	2	0	0	0	2	2	1	0	0	3
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	0	2	2	0	0	0	2	2	0	1	0	3
11:45 AM - 12:00 PM	2	0	0	0	2	2	0	0	1	3	1	0	0	0	1	2	0	0	1	3
12:00 PM - 12:15 PM	3	0	0	0	3	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3
12:15 PM - 12:30 PM	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2	2	0	0	0	2
12:30 PM - 12:45 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	0	0	0	1
12:45 PM - 1:00 PM	1	0	0	0	1	1	0	0	0	1	1	0	2	0	3	1	0	1	0	2
1:00 PM - 1:15 PM	7	0	0	0	7	6	0	0	0	6	4	0	0	0	4	6	0	0	0	6
1:15 PM - 1:30 PM	5	0	0	0	5	2	0	0	0	2	2	0	0	0	2	3	0	0	0	3
1:30 PM - 1:45 PM	4	0	0	0	4	3	0	1	0	4	0	0	0	1	1	3	0	1	1	5
1:45 PM - 2:00 PM	1	1	0	0	2	1	0	0	0	1	2	0	0	0	2	2	1	0	0	3
2:00 PM - 2:15 PM	2	0	0	0	2	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
2:15 PM - 2:30 PM	1	0	0	0	1	5	0	0	0	5	2	1	0	0	3	3	1	0	0	4
2:30 PM - 2:45 PM	7	1	1	0	9	4	1	0	0	5	4	0	0	0	4	5	1	1	0	7
2:45 PM - 3:00 PM	2	1	1	0	4	1	0	0	0	1	1	0	0	0	1	2	1	1	0	4
3:00 PM - 3:15 PM	3	0	0	0	3	4	0	0	0	4	3	0	0	0	3	4	0	0	0	4
3:15 PM - 3:30 PM	5	0	0	0	5	8	0	0	0	8	5	0	0	0	5	6	0	0	0	6
3:30 PM - 3:45 PM	16	0	0	0	16	21	1	0	0	22	22	1	0	0	23	20	1	0	0	21
3:45 PM - 4:00 PM	4	0	0	0	4	12	0	0	0	12	7	0	0	0	7	8	0	0	0	8
4:00 PM - 4:15 PM	8	0	0	0	8	6	0	0	0	6	3	0	0	0	3	6	0	0	0	6
4:15 PM - 4:30 PM	3	0	0	0	3	4	0	0	0	4	1	2	0	0	3	3	1	0	0	4
4:30 PM - 4:45 PM	6	0	0	0	6	5	1	0	0	6	6	0	0	0	6	6	1	0	0	7
4:45 PM - 5:00 PM	4	0	0	0	4	5	1	0	0	6	7	0	0	0	7	6	1	0	0	7
5:00 PM - 5:15 PM	9	0	0	0	9	9	0	0	0	9	8	0	0	0	8	9	0	0	0	9
5:15 PM - 5:30 PM	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
5:30 PM - 5:45 PM	2	0	0	0	2	3	0	0	0	3	8	0	0	0	8	5	0	0	0	5
5:45 PM - 6:00 PM	2	0	0	0	2	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3

Table 6 (3 of 3)
Survey Site Outbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
7:00 PM - 7:15 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
7:15 PM - 7:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Daily	134	19	7	3	172	142	23	12	3	189	132	18	10	4	164	136	20	10	4	170
AM Peak Hour*	7:00 AM - 8:00 AM															4	4	1	0	9
PM Peak Hour*	4:15 PM - 5:15 PM															24	3	0	0	27

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 7
Existing Site Trip Generation

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility	Counts								
Passenger Cars		1 Site	15	4	19	3	18	21	173
Trucks (2-Axle)		1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)		1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)		1 Site	0	0	0	1	0	1	8
Subtotal			19	9	28	9	21	30	241

Trips Generated - With On-Street Employee Parking									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility	Counts								
Passenger Cars		1 Site	20	4	24	4	24	28	272
Trucks (2-Axle)		1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)		1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)		1 Site	0	0	0	1	0	1	8
Subtotal			24	9	33	10	27	37	340

Notes:
1. Traffic counts at project driveway (see Tables 2 to 6).
2. Green Bee Facility at 18890 Seaton Ave, Perris, CA 92570.

Table 8
Project Trips Generated

Vehicle Trips Generated								
		AM Peak Hour			PM Peak Hour			
Land Use	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility								
Passenger Cars	1 Site	15	4	19	3	18	21	173
Trucks (2-Axle)	1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)	1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)	1 Site	0	0	0	1	0	1	8
Subtotal - Trucks		19	9	28	9	21	30	241
TOTAL VEHICLE TRIPS GENERATED		**19**	**9**	**28**	**9**	**21**	**30**	**241**
PCE Trips Generated[3]								
Green Bee Facility	PCE Factor							
Passenger Cars	1.0 PCE	15	4	19	3	18	21	173
Trucks (2-Axle)	1.5 PCE	4	8	12	4	6	10	80
Trucks (3-Axle)	2.0 PCE	5	3	8	8	0	8	50
Trucks (4+-Axle)	3.0 PCE	0	0	0	3	0	3	24
Subtotal - Trucks (PCE)		9	11	20	15	6	21	154
TOTAL PCE TRIPS GENERATED		**24**	**15**	**39**	**18**	**24**	**42**	**327**

Vehicle Trips Generated - With On-Street Employee Parking								
		AM Peak Hour			PM Peak Hour			
Land Use	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility								
Passenger Cars	1 Site	20	4	24	4	24	28	272
Trucks (2-Axle)	1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)	1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)	1 Site	0	0	0	1	0	1	8
Subtotal - Trucks		24	9	33	10	27	37	340
TOTAL VEHICLE TRIPS GENERATED		**24**	**9**	**33**	**10**	**27**	**37**	**340**
PCE Trips Generated[3] - With On-Street Employee Parking								
Green Bee Facility	PCE Factor							
Passenger Cars	1.0 PCE	20	4	24	4	24	28	272
Trucks (2-Axle)	1.5 PCE	4	8	12	4	6	10	80
Trucks (3-Axle)	2.0 PCE	5	3	8	8	0	8	50
Trucks (4+-Axle)	3.0 PCE	0	0	0	3	0	3	24
Subtotal - Trucks (PCE)		9	11	20	15	6	21	154
TOTAL PCE TRIPS GENERATED		**29**	**15**	**44**	**19**	**30**	**49**	**426**

Notes:
1. Traffic counts at project driveway (see Tables 1 to 5).
2. Green Bee Facility at 18890 Seaton Ave, Perris, CA 92570.
3. PCE = Passenger Car Equivalent

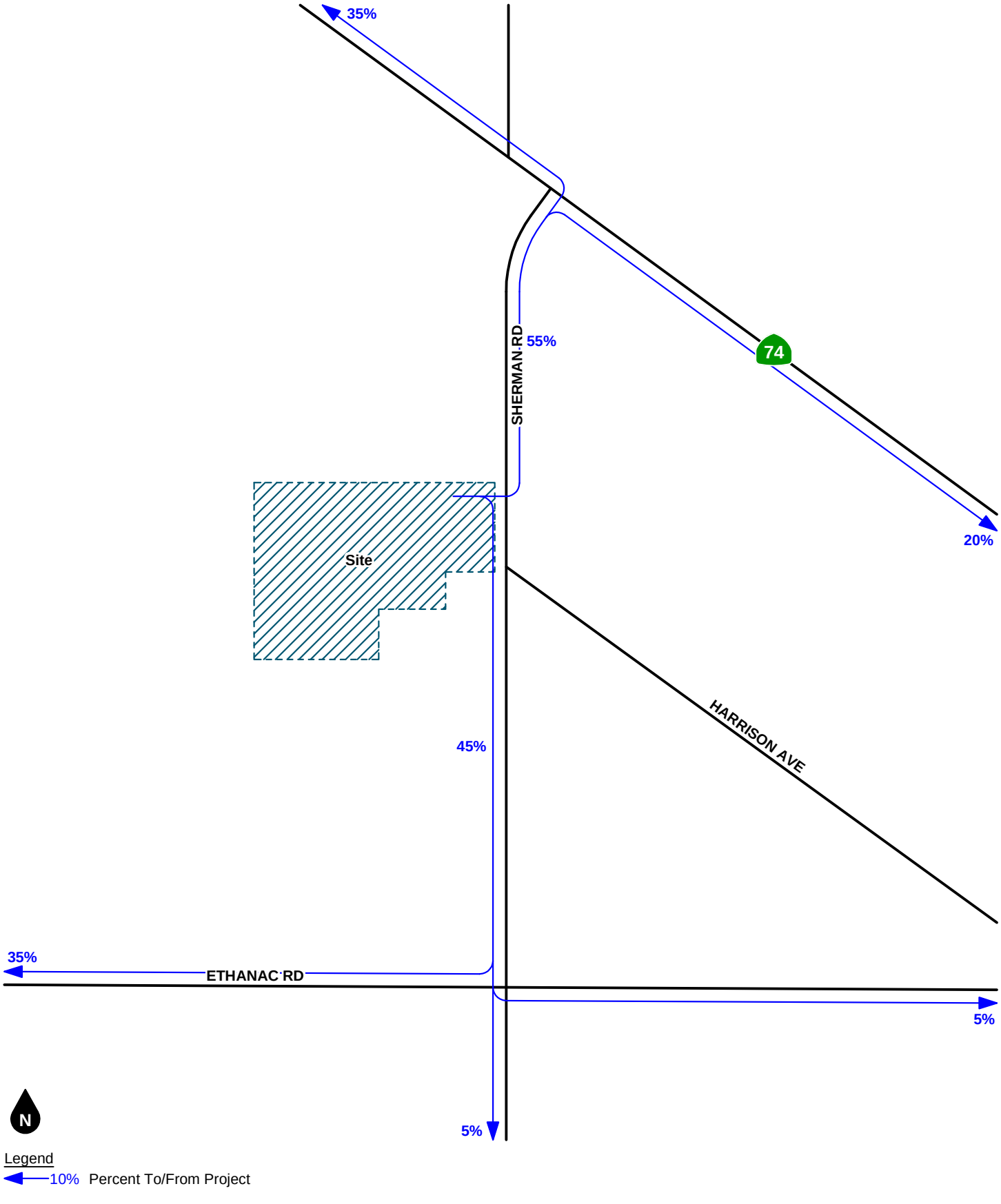


Figure 12
Project Trip Distribution - Passenger Cars

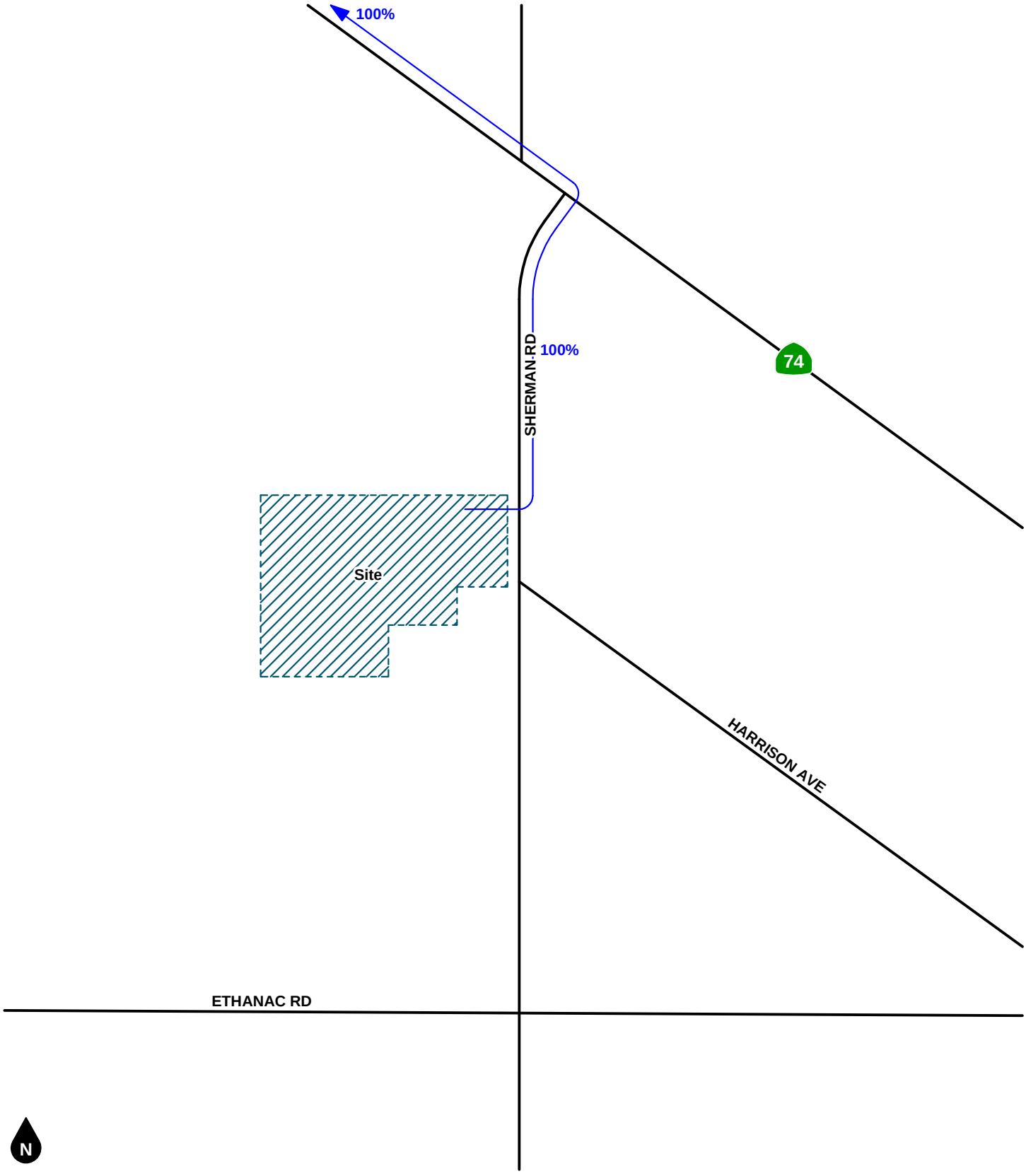
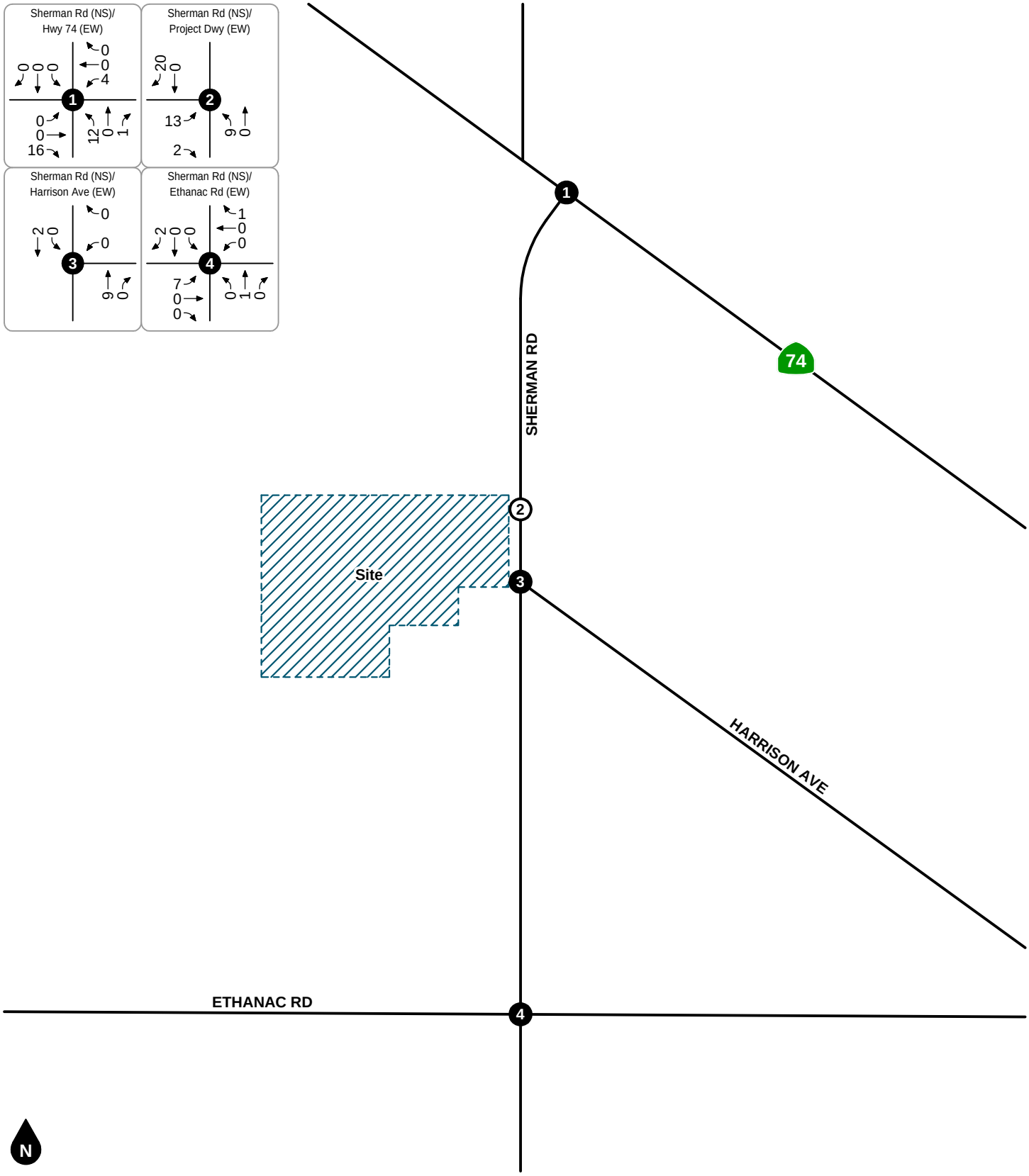


Figure 13
Project Trip Distribution - Trucks

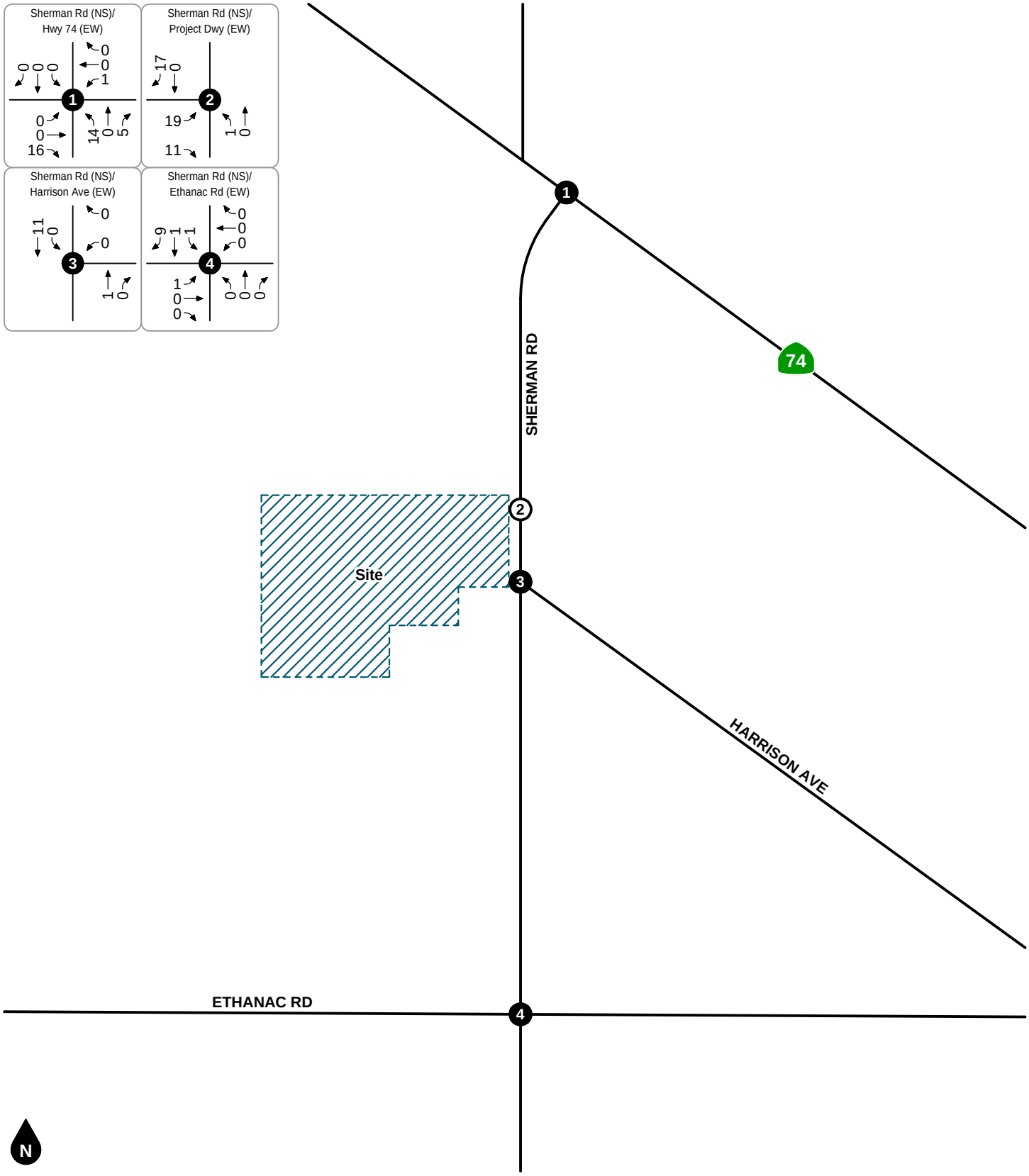


Legend

(#) Study Intersection

(#) Project Driveway

Figure 14
Project (PCE-Adjusted)
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

(#) Project Driveway

Figure 15
Project (PCE-Adjusted)
PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated on figures contained in this section.

CUMULATIVE TRIPS

Ambient Growth Rate

To account for ambient growth on roadways, existing 2026 roadway volumes were increased by a growth rate of two percent (2%) per year over two years for Existing Plus Ambient Growth conditions. This equates to a total growth factor of approximately 1.0404. The ambient growth rate was conservatively applied to all movements at the study intersections.

Other Development

To account for trips generated by future development, trips generated by pending or approved other development projects in the City of Perris and City of Menifee were added to the study area. Table 9 shows the other development trip generation and Figure 16 exhibits the other development location map.

Figure 17 and Figure 18 show the forecast AM and PM peak hour intersection turning movement volumes for trips generated by other developments.

ANALYSIS SCENARIO VOLUME FORECASTS

Existing Plus Ambient Growth With Project

Existing Plus Ambient Growth With Project volume forecasts were developed by adding ambient growth and the project generated trips to Existing volumes. Existing Plus Ambient Growth With Project AM and PM peak hour intersection turning movement volumes are shown on Figure 19 and Figure 20.

Existing Plus Ambient Growth & Cumulative Trips With Project

Existing Plus Ambient Growth & Cumulative Traffic With Project volume forecasts were developed by adding other development trips to Existing Plus Ambient Growth With Project volumes. Existing Plus Ambient Growth & Cumulative Traffic With Project AM and PM peak hour intersection turning movement volumes are shown on Figure 21 and Figure 22.

Table 9 (1 of 3)
Other Development Trip Generation

Map ID	Project Name	Land Use	Source[1]	Quantity[2]	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
	City of Perris										
1	GVSP - 37223	Single-Family Detached Residential	ITE 210	235 DU	44	120	164	136	83	219	2,136
2	GVSP - 37818	Multifamily Housing (Low-Rise)	ITE 220	138 DU	14	43	57	44	27	71	857
3	GVSP - 37817	Multifamily Housing (Low-Rise)	ITE 220	228 DU	22	71	93	74	45	119	1,416
4	GVSP - 37818 APT	Multifamily Housing (Low-Rise)	ITE 220	236 DU	23	74	97	76	47	123	1,466
5	Richland Self-Storage (GVSP)	Mini-Warehouse	ITE 151	116.000 TSF	5	4	9	8	8	16	150
6	Richland Ind (GVSP)	High-Cube Fulfillment Center (Warehouse)	ITE 155	498.000 TSF							
		Cars			37	12	49	26	28	54	712
		Trucks			13	13	26	3	3	6	430
		Subtotal			50	25	75	29	31	60	1,142
7	Blue Marquise	High-Cube Fulfillment Center (Warehouse)	ITE 155	350.000 TSF							
		Cars			26	9	35	19	27	46	501
		Trucks			10	10	20	3	3	6	430
		Business Park		14.000 TSF	11	2	13	3	8	11	140
		Subtotal			47	21	68	25	38	63	1,071
8	Classic Expansion	Warehouse	ITE 150	132.000 TSF							
		Cars			10	3	13	5	12	17	125
		Trucks			3	3	6	3	3	6	147
		Subtotal			13	6	19	8	15	23	272
9	Valley Parkway Center (Barbour)	Strip Retail Plaza (<40k)	ITE 822	26.200 TSF	57	46	103	82	82	164	1,427
10	Perris New Plaza Pad	Strip Retail Plaza (<40k)	ITE 822	7.500 TSF	16	13	29	24	24	48	408
11	Ethanac Travel Center[3]	Convenience Store	ITE 945	22.400 TSF							
		Cars			52	52	104	66	66	132	3,217
		Trucks			128	133	261	145	128	273	4,617
		Subtotal			180	185	365	211	194	405	7,834
12	Beyond Market, Gas Station, & Car Wash[4]	Convenience Store	ITE 945	6.900 TSF	96	97	193	110	111	221	3,187
13	Farmer Boys	High-Turnover Sit Down Restaurant	ITE 932	3.300 TSF	16	13	29	18	12	30	342
		Pass-By Trips (40% PM, 20% Daily)			--	--	--	-7	-5	-12	-68
		Subtotal			16	13	29	11	7	18	274
14	Motte Towne Center	Shopping Center (>150k)	ITE 820	484.300 TSF	264	162	426	774	805	1,579	17,624
		Pass-By Trips (19% PM, 9% Daily)			--	--	--	-147	-153	-300	-1,586
		Subtotal			264	162	426	627	652	1,279	16,038
	City of Menifee										
15	Ethanac Square (PP/CUP 2017-060)[5]	Convenience Store	ITE 945	3.800 TSF	89	84	173	87	82	169	2,085
16	COMPASS (DEV2022-018)	Warehouse	ITE 150	138.546 TSF							
		Cars			11	3	14	5	13	18	132
		Trucks			3	3	6	3	3	6	150
		Subtotal			14	6	20	8	16	24	282
17	Northern Gateway Commerce Center (PLN21-0282)	High-Cube Fulfillment Center (Warehouse)	ITE 155	1,286.607 TSF							
		Cars			96	32	128	68	99	167	1,840
		Trucks			38	35	73	16	16	32	1,112
		Subtotal			134	67	201	84	115	199	2,952
18	Ethanac & Barnett Warehouse (PLN21-0290)	Warehouse	ITE 150	125.000 TSF							
		Cars			10	3	13	5	12	17	119
		Trucks			3	3	6	3	3	6	138
		Subtotal			13	6	19	8	15	23	257

Table 9 (2 of 3)
Other Development Trip Generation

Map ID	Project Name	Land Use	Source[1]	Quantity[2]	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
19	Ares Warehouse on Murrieta (PLN22-0179)	High-Cube Fulfillment Center (Warehouse)	ITE 155	517.720 TSF							
		Cars			39	13	52	27	40	67	740
		Trucks			16	13	29	10	10	20	447
		Subtotal			55	26	81	37	50	87	1,187
20	Northern Gateway Logistics Center (PLN23-0040)	High-Cube Fulfillment Center (Warehouse)	ITE 155	411.829 TSF							
		Cars			31	10	41	22	32	54	589
		Trucks			13	10	23	3	3	6	357
		Subtotal			44	20	64	25	35	60	946
21	McLaughlin Village (TM 2015-250)	Multifamily Housing (Low-Rise)	ITE 220	126 DU	12	39	51	41	25	66	782
22	United Carports Warehouse (PLN22-0045)	Warehouse	ITE 150	58.643 TSF							
		Cars			5	1	6	2	6	8	56
		Trucks			0	0	0	0	0	0	64
		Subtotal			5	1	6	2	6	8	120
23	Mapes and Sherman Warehouse (PLN22-015)	High-Cube Fulfillment Center (Warehouse)	ITE 155	277.578 TSF							
		Cars			21	7	28	15	21	36	397
		Trucks			6	6	12	3	3	6	239
		Subtotal			27	13	40	18	24	42	636
24	On-Deck (PM 2016-291)	Hotel	ITE 310	108 RM	19	18	37	26	25	51	631
25	Trumble and Watson Warehouse (PLN22-0190)	High-Cube Fulfillment Center (Warehouse)	ITE 155	327.631 TSF							
		Cars			25	8	33	17	25	42	469
		Trucks			10	10	20	3	3	6	285
		Subtotal			35	18	53	20	28	48	754
26	Menifee West Coast Self-Storage Facility (PLN23-0215)	Mini-Warehouse	ITE 151	71.637 TSF	3	2	5	5	5	10	92
27	Ethanac Business Park (PLN23-0171)	High-Cube Fulfillment Center (Warehouse)	ITE 155	264.710 TSF							
		Cars			20	7	27	14	20	34	379
		Trucks			10	10	20	3	3	6	229
		Subtotal			30	17	47	17	23	40	608
28	Menifee Commerce Center (PP 2019-005)	High-Cube Fulfillment Center (Warehouse)	ITE 155	1,640.130 TSF							
		Cars			123	41	164	87	126	213	2,345
		Trucks			44	41	85	22	22	44	1,417
		Subtotal			167	82	249	109	148	257	3,762
29	Motte Business Center (DEV2022-014)	High-Cube Fulfillment Center (Warehouse)	ITE 155	1,138.638 TSF							
		Cars			85	28	113	60	88	148	1,628
		Trucks			31	28	59	13	13	26	987
		Subtotal			116	56	172	73	101	174	2,615
30	Omega Paving (PLN24-0048)	Asphalt Concrete Storage Yard	--	--	--	--	--	--	--	--	--
31	Nova Power Bank Project (PLN22-0155)	Battery Energy Storage System	--	--	--	--	--	--	--	--	--
32	Double Butte BESS (PLN 22-0283)	Battery Energy Storage System	--	--	--	--	--	--	--	--	--
33	Kaiser Permanente Medical Office	Medical-Dental Office Building	ITE 720	50.800 TSF	127	36	163	52	122	174	1,729
34	McLaughlin San Jacinto Warehouses (DEV2022-016)	High-Cube Fulfillment Center (Warehouse)	ITE 155	491.467 TSF							
		Cars			37	12	49	26	38	64	703
		Trucks			13	13	26	3	3	6	425
		Subtotal			50	25	75	29	41	70	1,128

Table 9 (3 of 3)
Other Development Trip Generation

Map ID	Project Name	Land Use	Source[1]	Quantity[2]	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
35	Menifee 37 TTM (PLN24-0187)	Multifamily Housing (Low-Rise)	ITE 220	587 DU	58	183	241	189	116	305	3,645
36	Waring Tract (PLN-0058)	Multifamily Housing (Low-Rise)	ITE 220	91 DU	9	28	37	29	18	47	565
37	LDW TTM 38346 (PLN22-004)	Multifamily Housing (Low-Rise)	ITE 220	162 DU	16	50	66	52	32	84	1,006
38	Underwood (KB Homes) (TTM 29835)	Single-Family Detached Residential	ITE 210	543 DU	103	277	380	313	192	505	4,936
39	Legado (2017-189)	Single-Family Detached Residential	ITE 210	1,022 DU	193	522	715	589	361	950	9,290
40	Menifee 27 (TTM39115)	Single-Family Detached Residential	ITE 210	192 DU	36	98	134	111	68	179	1,745
41	Countryside TTM 38132 (DEV2021-005)	Single-Family Detached Residential	ITE 210	169 DU	32	86	118	97	60	157	1,536
	Harvest Glen TTM 38133 (DEV2021-005	Single-Family Detached Residential	ITE 210	145 DU	27	74	101	84	51	135	1,318
42	Motte Country Plaza (TPM 2018-320)	High-Turnover Sit Down Restaurant	ITE 932	-6.380 TSF	-31	-26	-57	-36	-23	-59	-662
		Convenience Store (4-5.5k)	ITE 945	12 FP	122	117	239	115	115	230	2,442
		Pass-By Trips (75% AM, 76% PM, 75% Daily)			-92	-88	-180	-87	-87	-174	-1,832
		Automated Car Wash	ITE 948	1.050 TSF	9	7	16	13	13	26	266
		Subtotal			8	10	18	5	18	23	214
43	HWY 74 and Menifee Road Commercial and Industrial Center (Howard) (PLN23-0100)	Shopping Plaza (40-150k)	ITE 821	81.000 TSF	172	115	287	341	354	695	8,216
		Pass-By Trips (40% PM, 20% Daily)			--	--	--	-136	-142	-278	-1,643
		Subtotal			172	115	287	205	212	417	6,573
		High-Cube Fulfillment Center (Warehouse)	ITE 155	1,500.000 TSF							
		Cars			113	38	151	80	116	196	2,145
		Trucks			44	38	82	22	22	44	1,299
		Subtotal			157	76	233	102	138	240	3,444
		Total			329	191	520	307	350	657	10,017
44	Menifee Valley Business Park (PLN24-0067)	High-Cube Fulfillment Center (Warehouse)	ITE 155	2,626.302 TSF							
		Cars			197	66	263	139	202	341	3,756
		Trucks			72	66	138	35	35	70	2,270
		Subtotal			269	132	401	174	237	411	6,026
Total					2,867	3,047	5,914	4,056	3,728	7,784	98,542

Notes:

(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (12th Edition, 2025); ### = Land Use Code

(2) TSF = Thousand Square Feet; DU = Dwelling Units

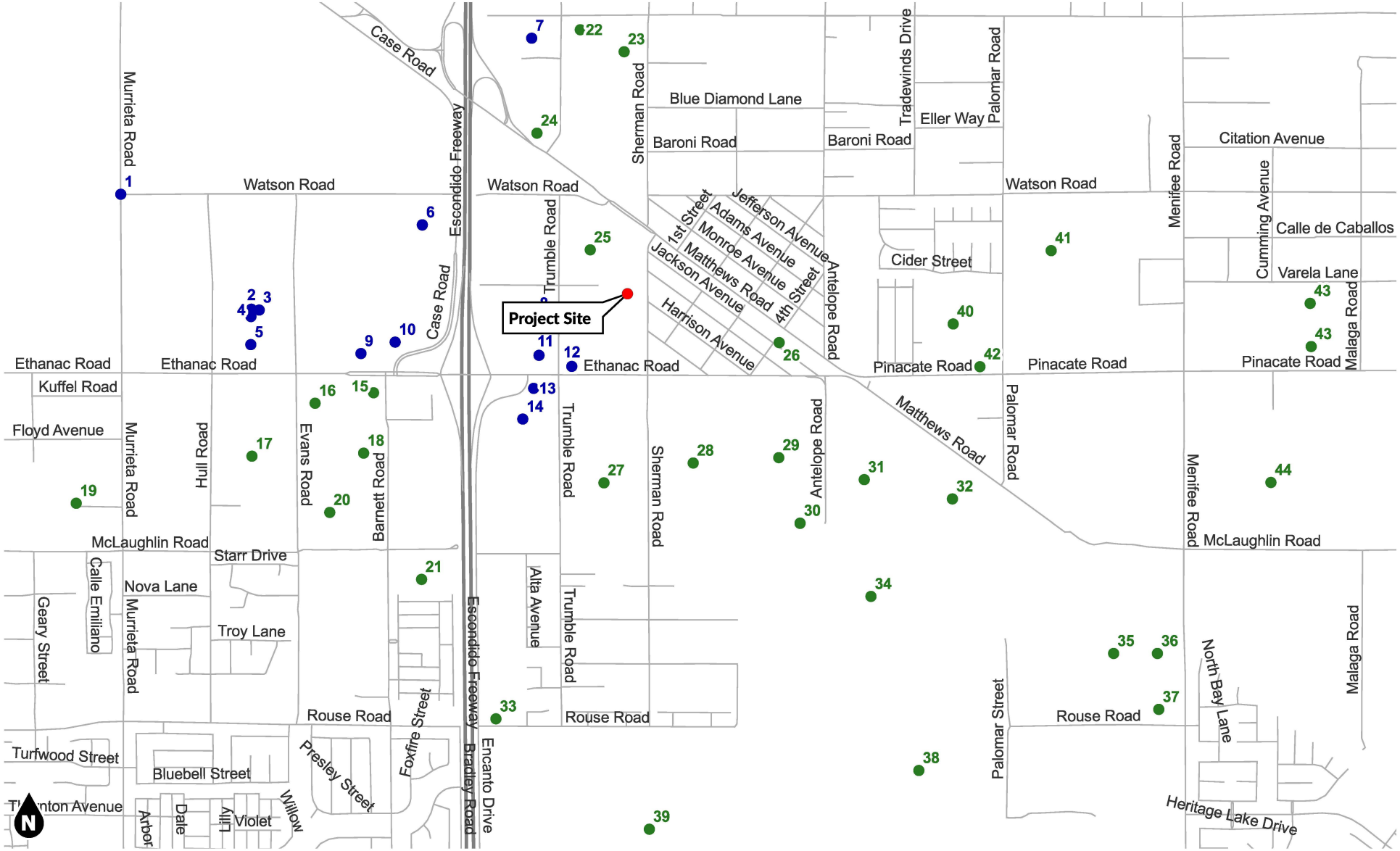
(3) Source: *Transportation Analysis for the Perris Travel Center Case No. P22-05002* , prepared by Kimley Horn, October 2022.

(4) Source: *Beyond Food Mart (NEC Trumble and Ethanac) (CUP 22-0592) Traffic Impact Analysis*, prepared by Ganddini Group, Inc., November 1, 2024.

(5) Source: City of Menifee Planning Application No. PP 2017-060 Ethanac Square CEQA Environmental Checklist Form

(6) Pass-by trips calculated in accordance with ITE recommended practice and rates from the ITE Trip Generation Manual (12th Edition, 2025) for peak hour trips. For daily pass-by rates that are not available, the daily pass-by rate was determined as the lower of the AM or PM peak hour pass-by rate or one-half of the PM peak hour rate when there is no AM peak hour rate.

(7) Truck trips converted to passenger car equivalents (PCEs. PCE factors are based on the *City of Perris Transportation Impact Analysis Guidelines for Level of Service and Vehicle Miles Traveled* , April 2026.

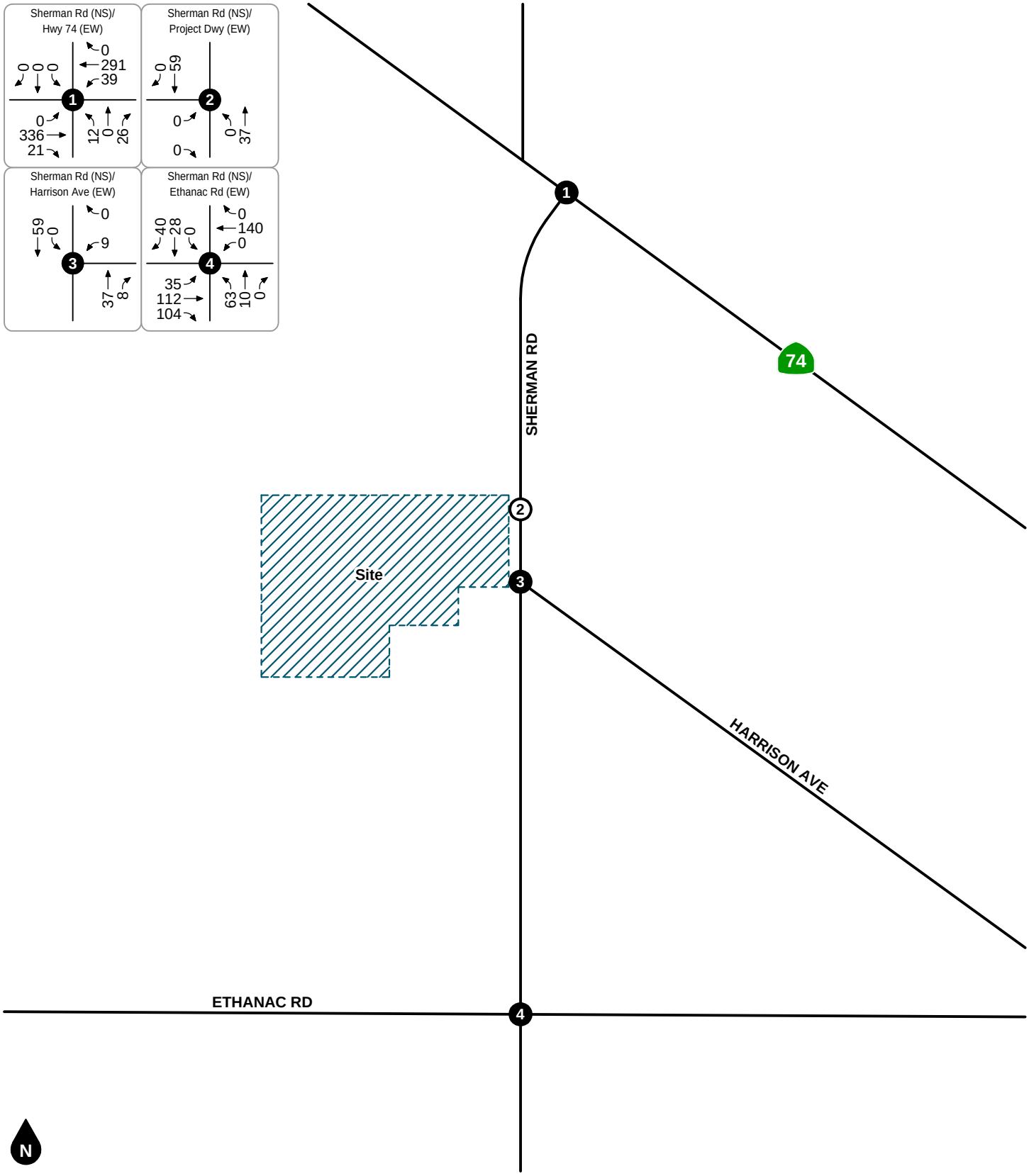


Legend

Other Development (see Table 9 for ID)

- City of Perris
- City of Menifee

Figure 16
Other Development Location Map

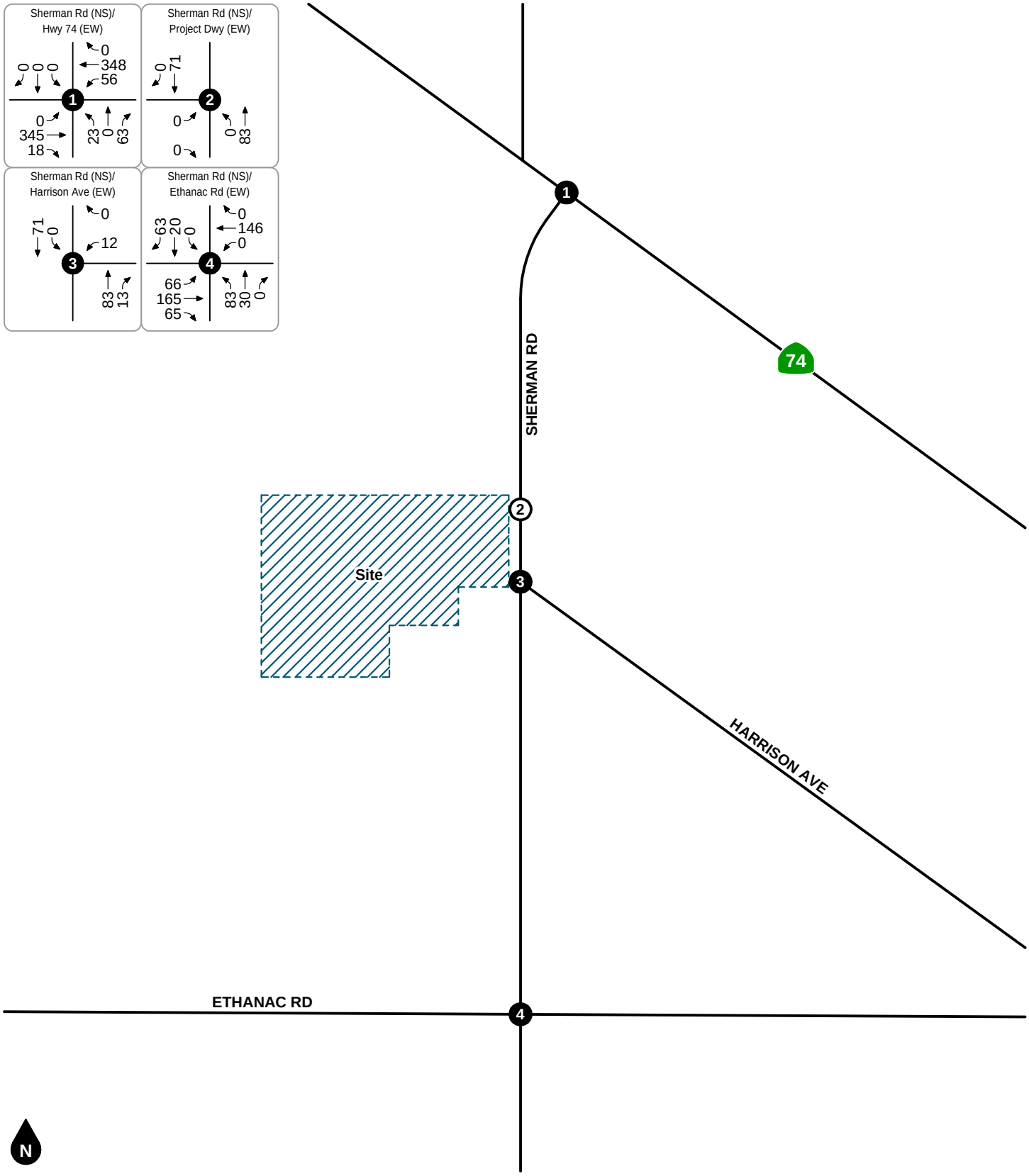


Legend

(#) Study Intersection

(#) Project Driveway

Figure 17
Other Development (PCE-Adjusted)
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

(#) Project Driveway

Figure 18
Other Development (PCE-Adjusted)
PM Peak Hour Intersection Turning Movement Volumes

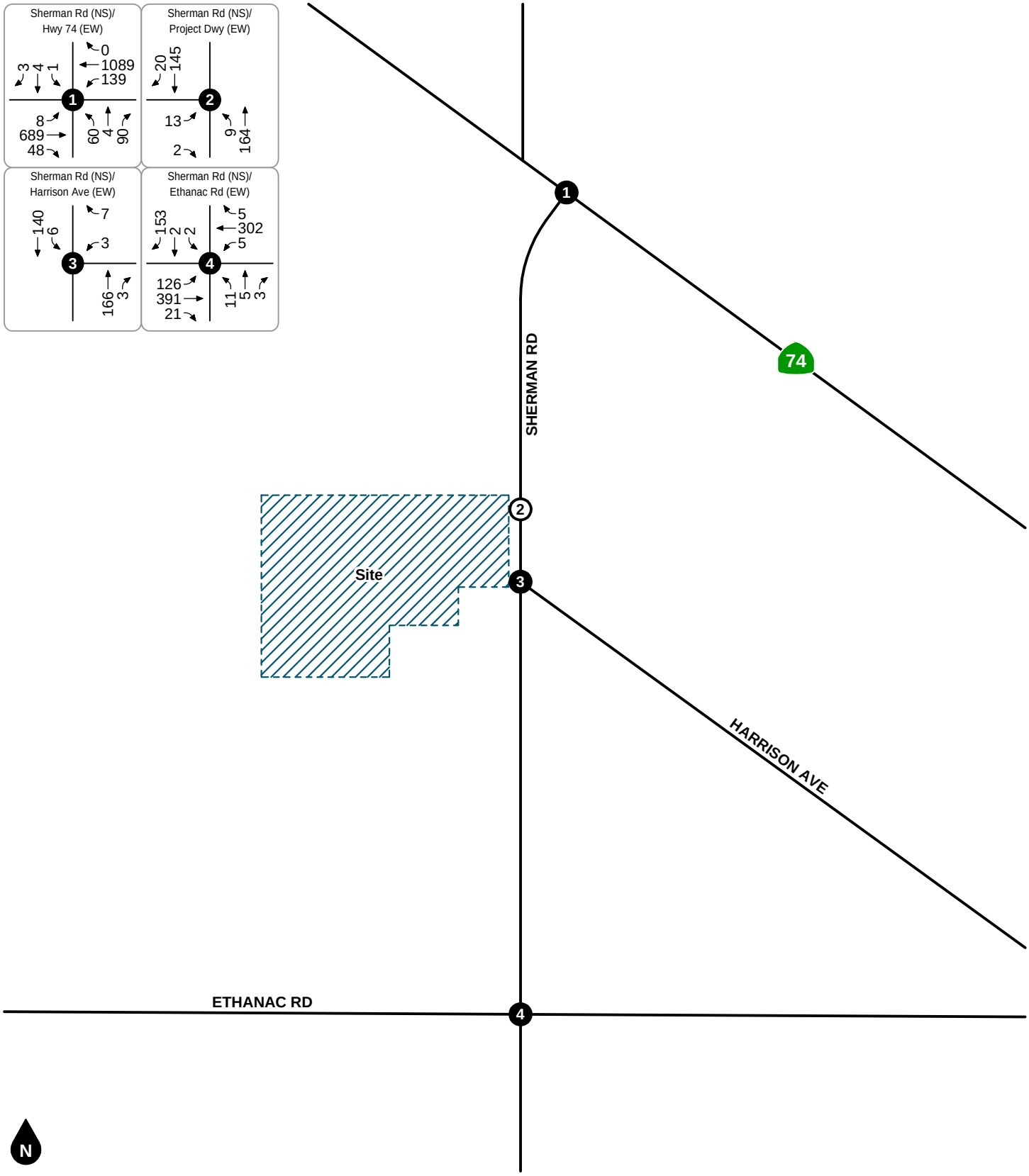
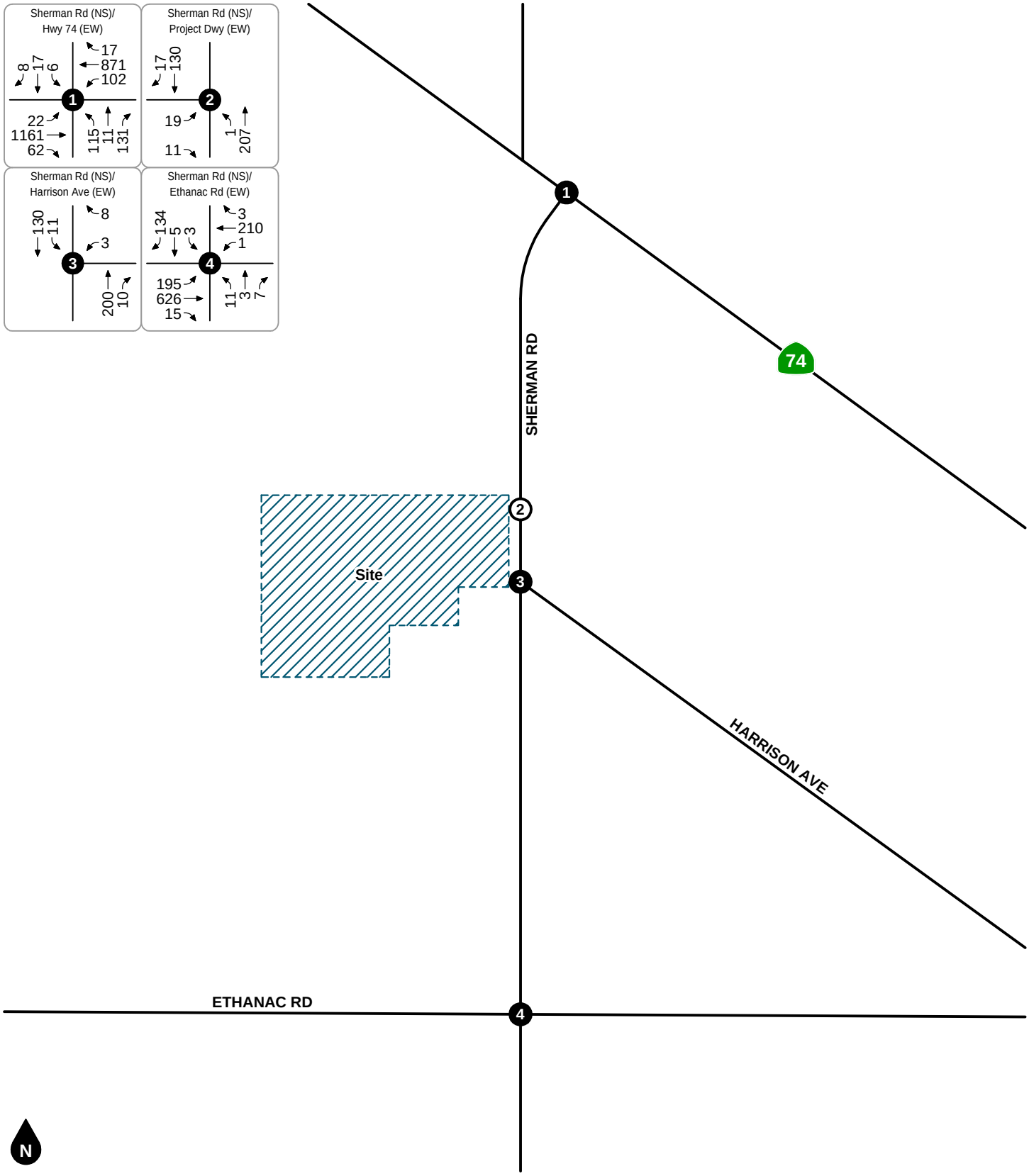


Figure 19
Existing Plus Ambient Growth With Project (PCE-Adjusted)
AM Peak Hour Intersection Turning Movement Volumes

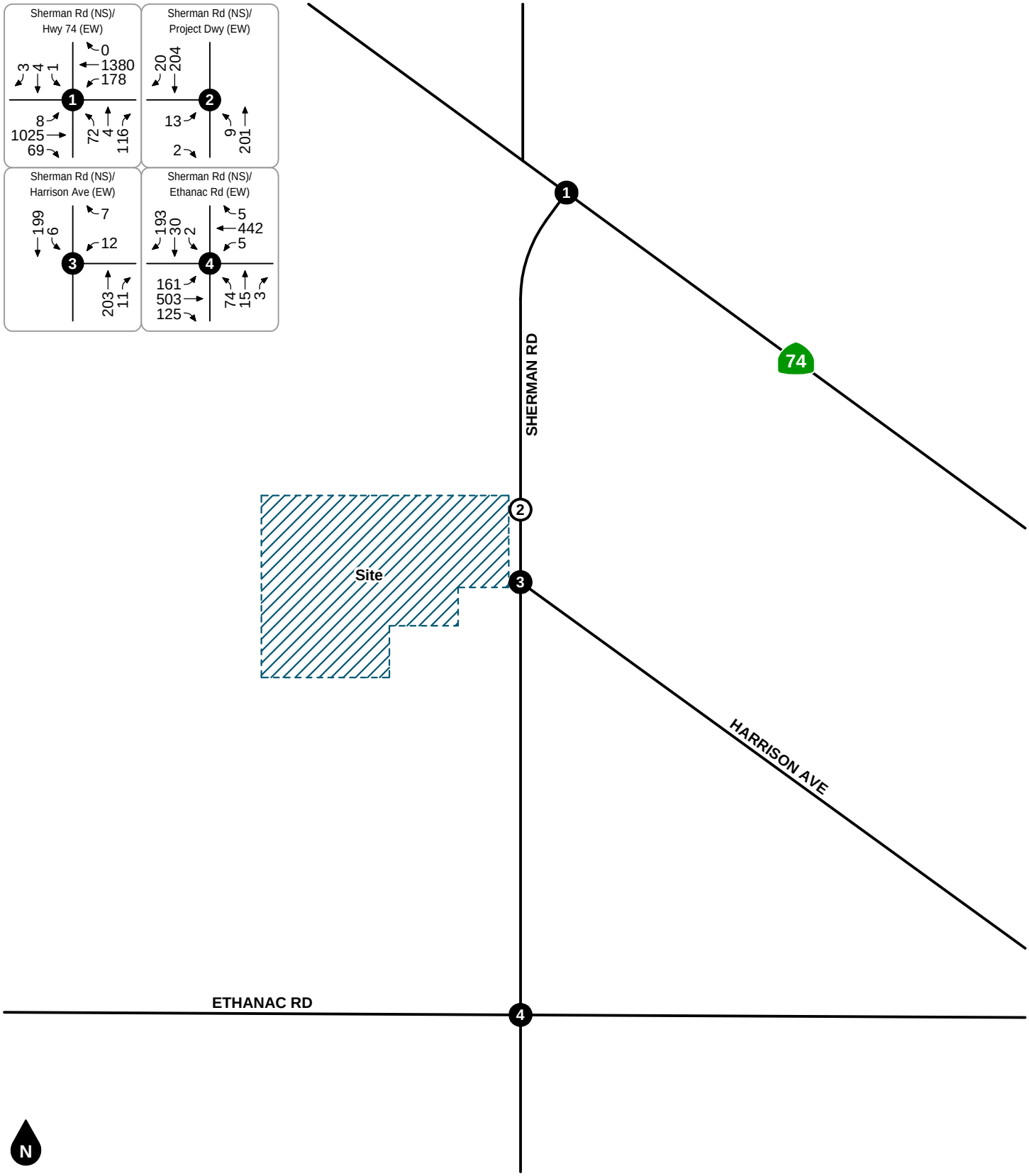


Legend

(#) Study Intersection

(#) Project Driveway

Figure 20
Existing Plus Ambient Growth With Project (PCE-Adjusted)
PM Peak Hour Intersection Turning Movement Volumes

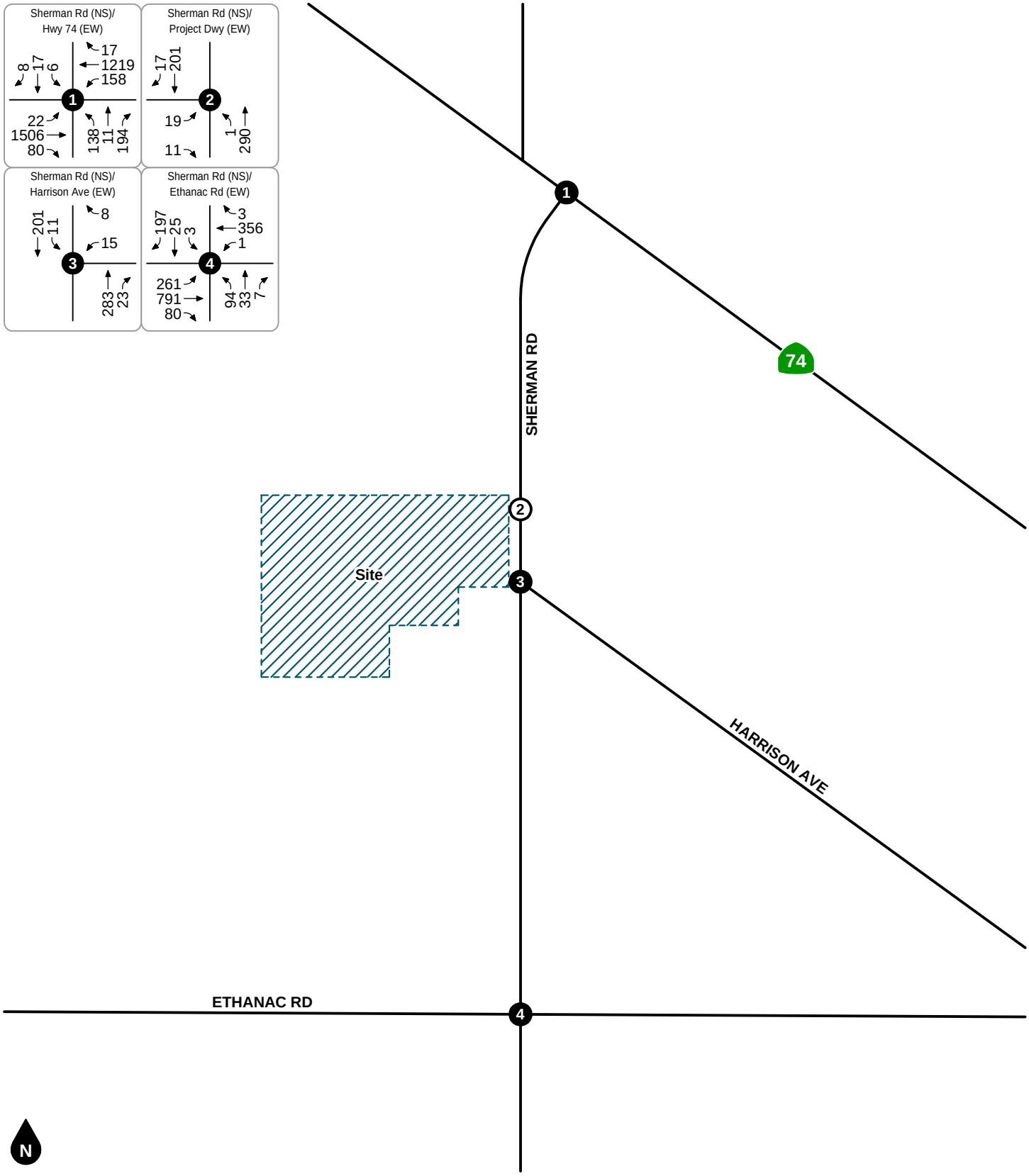


Legend

Study Intersection

(#) Project Driveway

Figure 21
Existing Plus Ambient Growth & Cumulative Traffic With Project (PCE-Adjusted)
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

(#) Project Driveway

Figure 22
Existing Plus Ambient Growth & Cumulative Traffic With Project (PCE-Adjusted)
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE OPERATIONAL ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

EXISTING PLUS AMBIENT GROWTH WITH PROJECT

The intersection Levels of Service for Existing Plus Ambient Growth With Project conditions are shown in Table 10. As shown in Table 10, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth With Project conditions, except for the following study intersection that is forecast to continue at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

The City of Perris TIA Guidelines consider the project to contribute a direct impact to this intersection; however, it should be noted that this intersection currently operates a deficient Level of Service E during the PM peak hour. To further evaluate the degree of project impact, the intersection was also analyzed for Existing Plus Ambient Growth conditions to compare the delay increase based on the project (worksheets are included in Appendix D). The Existing PM peak hour delay at the intersection is 35.2 seconds. The Existing Plus Ambient Growth PM peak hour delay is 39.2 seconds. The Existing Plus Ambient Growth With Project PM peak hour delay is 40.2 seconds. Thus, two years of ambient growth increases delay by 4.0 seconds and the project increases the delay further by 1.0 seconds. Furthermore, it is noted that the existing Level of Service deficiency relates to the northbound approach, within City of Menifee jurisdiction, to which the project is not forecast to contribute trips; the southbound approach within City of Perris jurisdiction is forecast to operate at Level of Service B during the peak hours. In summary, the project impact is marginal based on the following considerations:

- The intersection currently operates at deficient Level of Service E during the PM peak hour
- The project is not forecast to add trips to the currently deficient northbound approach
- The addition of project trips alone at other intersection turning movements has a secondary effect on the northbound approach resulting in a marginal increase of 1.0 seconds in delay

For these reasons, any improvements for which the project is 100% responsible for should be roughly proportional to the project's impact. Since the existing Level of Service deficiency is associated with the northbound approach, primarily the northbound left turn movement within City of Menifee jurisdiction, the following measure is recommended to address the project's direct impact:

Corrective Measure #1
Prior to certificate of occupancy, if a traffic signal has not been installed at the intersection of Sherman Road at Ethanac Road, the project shall install NO LEFT TURN, 4 PM – 6 PM, MON – FRI signage at the northbound approach, subject to approval by the City of Menifee.

The study intersection of Sherman Road at Ethanac Road [#4], specifically the northbound approach within City of Menifee jurisdiction, is forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth With Project conditions, with implementation of the recommended corrective measure (see Table 10).

Furthermore, the Menifee Commerce Center is a large high-cube warehouse currently under construction south and east of the intersection of Sherman Road and Ethanac Road [#4]. It is included in the other development list (Table 9 and Figure 16) as Map ID 28. It has been conditioned by the City of Menifee to install a traffic signal and other lane geometry improvements at the intersection prior to occupancy (Conditions of Approval for Tentative Parcel Map No. 38156 (PLN21-0305)). Thus, a traffic signal and other improvements

at the intersection of Sherman Road and Ethanac Road [#4] are expected to be installed by the Menifee Commerce Center, as required per its Conditions of Approval, prior to occupancy of the proposed project.

EXISTING PLUS AMBIENT GROWTH & CUMULATIVE TRAFFIC WITH PROJECT

The intersection Levels of Service for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions are shown in Table 11. As shown in Table 11, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth & Cumulative Traffic With Project, except for the following study intersection that is projected to operate at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

The following improvements are recommended to maintain acceptable Levels of Service for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions:

- Sherman Road (NS) at Ethanac Road (EW) - #4
  - Install traffic signal
  - Restripe southbound shared left/through/right turn lane to shared left/through lane
  - Construct southbound right turn lane
  - Construct eastbound left turn lane
  - Restripe eastbound shared left/through/right turn lane to shared through/right turn lane

As previously noted, the Menifee Commerce Center is conditioned to install a traffic signal and other lane geometry improvements at this intersection; however, the improvements shown above represent the minimum necessary to maintain acceptable Levels of Service based on the findings of this analysis scenario.

The study intersection of Sherman Road at Ethanac Road [#4] is forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions, with improvements (see Table 11).

DEVELOPMENT IMPACT FEE

The proposed project shall contribute towards the City of Perris Development Impact Fee program (Ordinance No. 1182 Section 19.68.020) and regional Transportation Uniform Mitigation Fee (TUMF) (Ordinance No. 1352). The Development Impact Fee provides a funding mechanism for arterial streets, traffic signals, interchange improvements as well as emergency services. The purpose of such fees is to minimize, to the greatest extent practicable, the impact that new development has on the City's public services and public facilities. The City intends for new development project applicants to pay their fair share of the costs of providing such public services and public facilities. Unless otherwise approved by the City, all development projects are required to pay the Development Impact Fee as a condition of development.

FAIR SHARE ANALYSIS

The project fair share of the cost to implement the recommended off-site improvements listed above is shown in Table 12. The project fair share is based on the proportion of project peak hour traffic volume contributed to the improvement location relative to the total new peak hour traffic volume for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions. As previously noted, the Menifee Commerce Center is conditioned to install a traffic signal and other lane geometry improvements at the intersection of Sherman Road at Ethanac Road [#4]; therefore, the project fair share is provided for informational purposes. As shown in Table 12, the project fair share percentage for the intersection of Sherman Road at Ethanac Road [#4] for the AM peak hour is 1.9% and for the PM peak hour is 1.7%.

Table 10
Existing Plus Ambient Growth With Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Sherman Rd at Hwy 74	TS	12.3	B	16.9	B
2. Sherman Rd at Project Dwy	CSS	10.5	B	10.3	B
3. Sherman Rd at Harrison Ave	CSS	9.6	A	9.9	A
4. Sherman Rd at Ethanac Rd	CSS	30.3	D	40.2	E
- With Improvements		--	--	29.1	D

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 11
Existing Plus Ambient Growth & Cumulative Traffic With Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Sherman Rd at Hwy 74	TS	15.0	B	25.7	C
2. Sherman Rd at Project Dwy	CSS	11.3	B	11.4	B
3. Sherman Rd at Harrison Ave	CSS	10.9	B	11.9	B
4. Sherman Rd at Ethanac Rd	CSS	819.1	F	3,701.0	F
- With Improvements	TS	20.4	C	24.8	C

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 12
Fair Share Analysis

ID	Study Intersection	Peak Hour	Peak Hour Volumes				Project Share
			Existing	Existing Plus Ambient Growth & Cumulative Trips With Project	Total New Trips	Project Trips	
4.	Sherman Rd at Ethanac Rd	AM	976	1,558	582	11	1.9%
		PM	1,155	1,851	696	12	1.7%

7. SITE ACCESS ASSESSMENT AND CIRCULATION

This section includes a description of project improvements necessary to provide site access.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project and adjacent properties to provide project site access, as necessary:

- Sherman Road (NS) at Project Driveway (EW) [Study Intersection #2]
  - Construct one inbound lane and one outbound lane with eastbound stop-control for auto and truck access
  - Northbound: one shared through/left turn lane
  - Southbound: one shared through/right turn lane
  - Eastbound: one shared left/right turn lane

This analysis also assumes the project shall comply with the following or similar conditions as part of the City of Perris standard development review process:

- A construction work site traffic control plan shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and shall be submitted to the City for review and approval prior to the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction related trips shall be restricted to off-peak hours to the extent possible.

- All on-site and off-site roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable State/Federal engineering standards to the satisfaction of the City of Perris.

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Perris.

- Adequate emergency vehicle access shall be provided to the satisfaction of the Riverside County Fire Authority.

- The final grading, landscaping, and street improvement plans shall demonstrate that sight distance requirements are met in accordance with applicable City of Perris/California Department of Transportation sight distance standards.

PROJECT ACCESS

The project is proposing one full access driveway to Sherman Road with eastbound stop control. This 40-foot wide project driveway will service both passenger cars and trucks. An access gate is proposed approximately 85 feet from the entrance on Sherman Road. This access gate is proposed to be manually controlled and is only for security purposes. It will open prior to work hours and close after work hours. The guard shack and security personnel will not be operating the gate based on vehicles entering/exiting, as their purpose is to report any perceived security risks at the entrance of the site. Since the gate will be open during business hours and closed for security purposes during off-business hours, the gate is not expected to result in queuing by vehicles entering the site and no additional gate access analysis is necessary.

TYPES OF TRUCKS USED ON-SITE

The following are the types of trucks that will utilize the project site:

Freightliner Semi Truck and Trailer
65' long x 8'6" wide (5-axle)



Concrete Pump
39' long x 8'6" wide (3-axle)



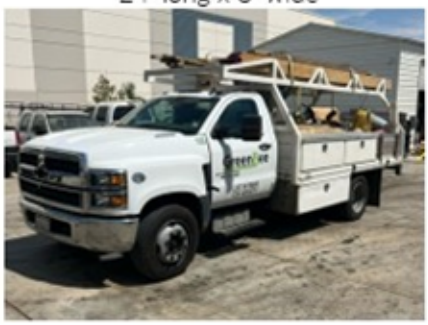
Freightliner M2 Flatbed
37'4" long x 8'6" wide (2-axle)



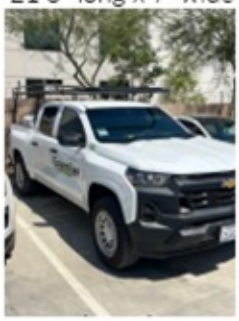
Freightliner M2 Truck
34'4" long x 8'6" wide (3-axle)



Chevy 5500
24' long x 8' wide



Chevy 3500
21'6" long x 7' wide



Chevy Colorado
18' long x 6' 6" wide



ON-SITE PARKING

Figure 23 illustrates where different vehicles are allocated to park on-site. As shown on Figure 23, semi-trucks/trailers will park at the west end of the site. Pickup trucks (Chevy 5500, Chevy 3500, and Chevy Colorado) will park in the designated parking zone above the proposed building. There are bollards proposed on the east side of the drive aisle precluding vehicles from entering/exiting. All pickup trucks must enter/exit on the west side of the drive aisle to prevent conflicts with general automobiles in the parking areas. The automobile parking area directly adjacent to the north of the building will have bollards at the west end of the drive aisle to prevent the potential for conflicts with semi-truck/trailers and pickup trucks.

ON-SITE TRUCK CIRCULATION

Trucks will enter/exit the project site at Sherman Drive traversing the east-west drive aisle adjacent to the northern property boundary towards the lumber yard. Figure 24 shows the truck turning templates for trucks entering and exiting the project site. The Low-Boy Trailer 53 Feet (Freightliner Semi-Truck and Trailer equivalent) were used for the truck turning templates as it's the largest truck proposed to access the project site.

Figure 25 shows an alternative truck-turning template path of travel provided by the project applicant. This figure shows a potential truck path through the angled parking spaces when they are not in use.

Figure 26 and Figure 27 show internal inbound and outbound truck turning templates to the truck parking spaces on the western project boundary. Trucks, and in particular the Low-Boy Trailer 53 Feet (Freightliner Semi-Truck and Trailer equivalent) are not anticipated to park on-site within these parking spaces as on-site truck operations are used for transport, loading, dispatch, and return operations only. Thus, trucks are expected to traverse the project site while undergoing their daily transport operations and are not expected to park on-site other than for a short-term temporary basis, if at all.

The diagonal truck parking spaces east of the western project boundary are not anticipated to be used for truck parking, but instead will be used for truck circulation as shown on Figure 25. This path of travel has been derived between the project applicant and City of Perris staff. Therefore, with these parallel parking spaces clear and used for travel instead of parking, trucks accessing and exiting the truck parking spaces on the western project boundary can traverse through these parking spaces. The truck parking spaces along the northwest project boundary cannot be used for larger trucks but can be used for smaller trucks that can safely navigate in/out of those parking spaces.

TRUCK TURNING TEMPLATES

Truck turning path analysis for trucks entering/exiting the project site driveway on Sherman Street is provided in Figure 28 and Figure 29. As shown on Figure 28, all trucks are expected to enter the project site heading southbound on Sherman Road and making a right turn into the project site. As shown on Figure 29, all trucks are expected to exit the project site heading northbound on Sherman Road and making a left turn from the project site. Based on the truck turning path analysis, the project driveway is expected to adequately accommodate truck turning movements to/from Sherman Road.

DRIVEWAY SPACING ANALYSIS

The County of Riverside, State of California *County Road Standards and County Standard Specifications*, Ordinance No. 461 as Amended by Ordinance No 461.11 Adopted January 31, 2023, Effective March 2, 2023, Standard No. 114, states that appropriate driveway spacing for intersections along a Local Road is 200 feet, and along a Major Highway is 660 feet. It is noted that these roadway spacing standards are intended to guide design of "intersection intervals" for the classified roadway network. While these spacing standards are

ideally applied to private access driveways when feasible, it is common to allow shorter driveway spacing on properties with limited frontage.

Sherman Road is not classified on the City of Perris General Plan Circulation Element, but is classified as a Major (4 Lanes, Divided) on the City of Menifee General Plan Circulation Element. Hence, intersection spacing standards on Sherman Road would be 660 feet based on the City of Menifee General Plan Circulation Element.

Figure 30 shows the driveway spacing between intersections along Sherman Road. As shown on Figure 30, many of the roadways east of Sherman Road are between 270 feet and 650 feet. Thus, these roadways would not meet County of Riverside driveway spacing standards according to the City of Menifee classification. The project driveway is approximately 270 feet south of Van Buren Avenue, which satisfies the driveway spacing standards for City of Perris. The project driveway is approximately 186 feet north of Harrison Avenue, which does not satisfy the driveway spacing standards for City of Perris but is located at the maximum possible spacing at the northmost end of the project frontage.

Conceptual Signing/Striping Plans

The project applicant has coordinated with City of Perris and City of Menifee staff in the development of conceptual striping/signing plans for Sherman Road along the project frontage. Considerations include right-of-way access for the existing single-family residential development to the south of the project site as well as right-of-way access for developments on the east side of Sherman Road within the City of Menifee. The Sherman Road conceptual signing/striping plan is included in Appendix F.

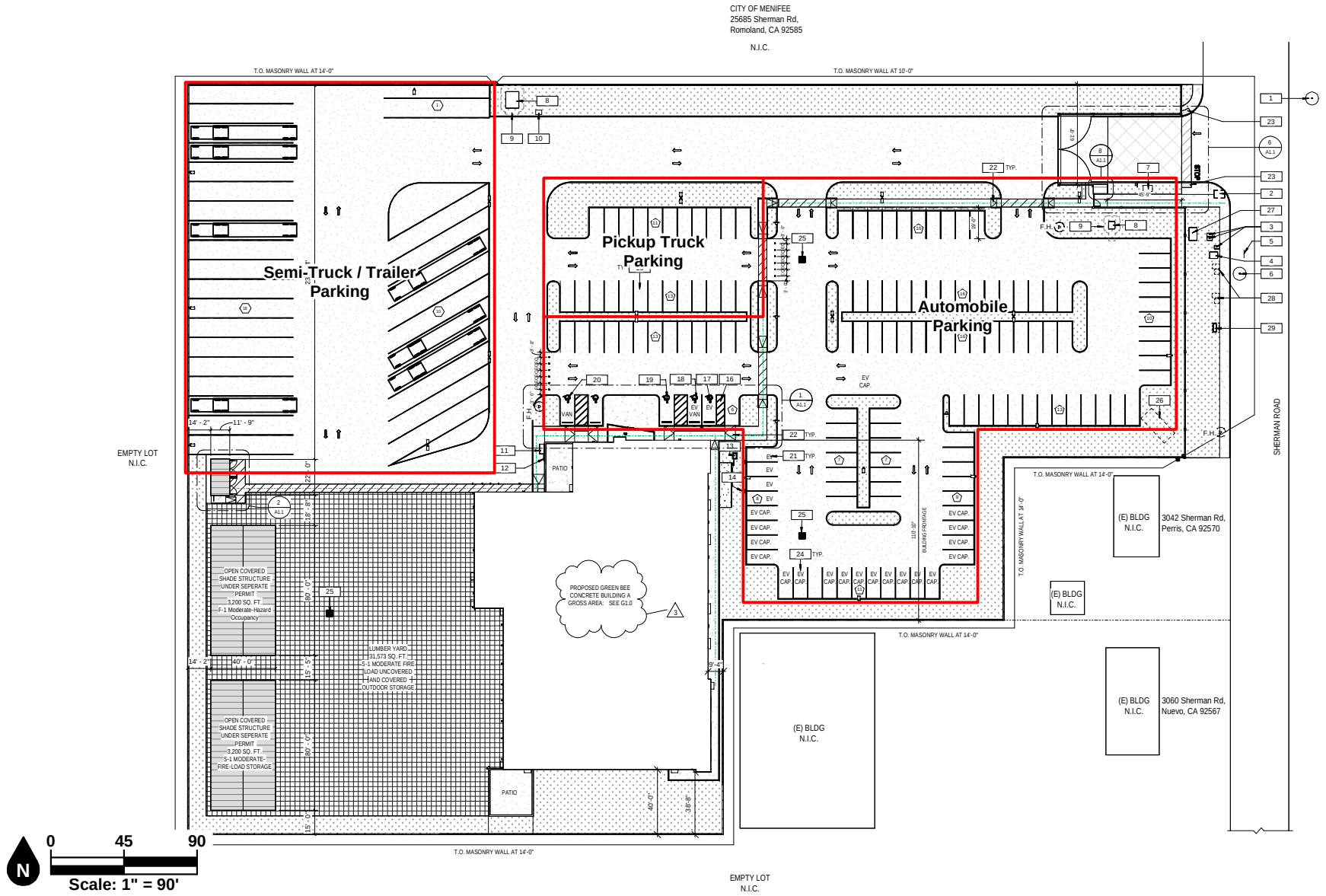
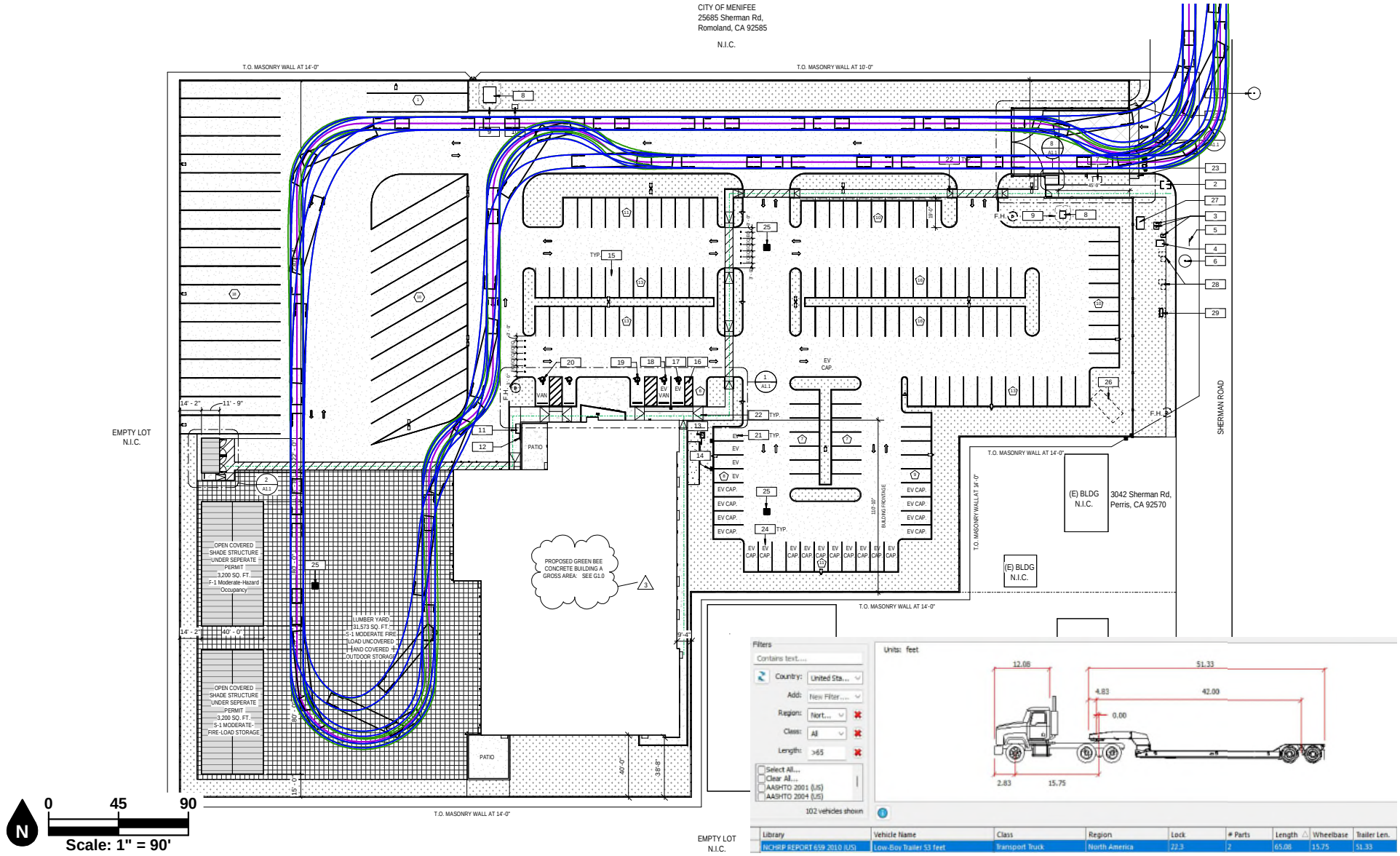


Figure 23
Parking Designations



Legend

- Vehicle Wheel Path
- Vehicle Overhang
- Vehicle Centerline

Figure 24
Internal On-Site Truck Circulation

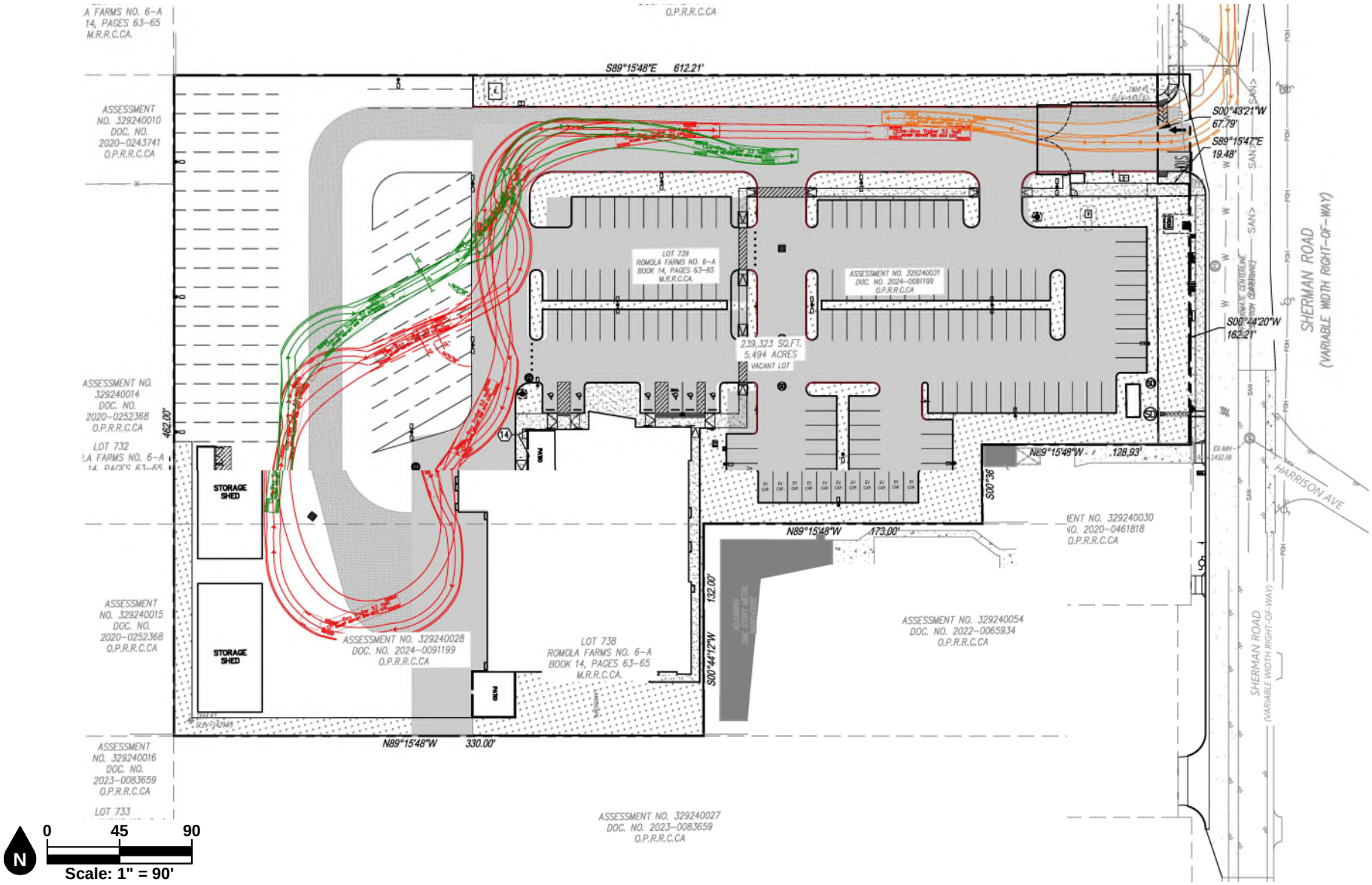
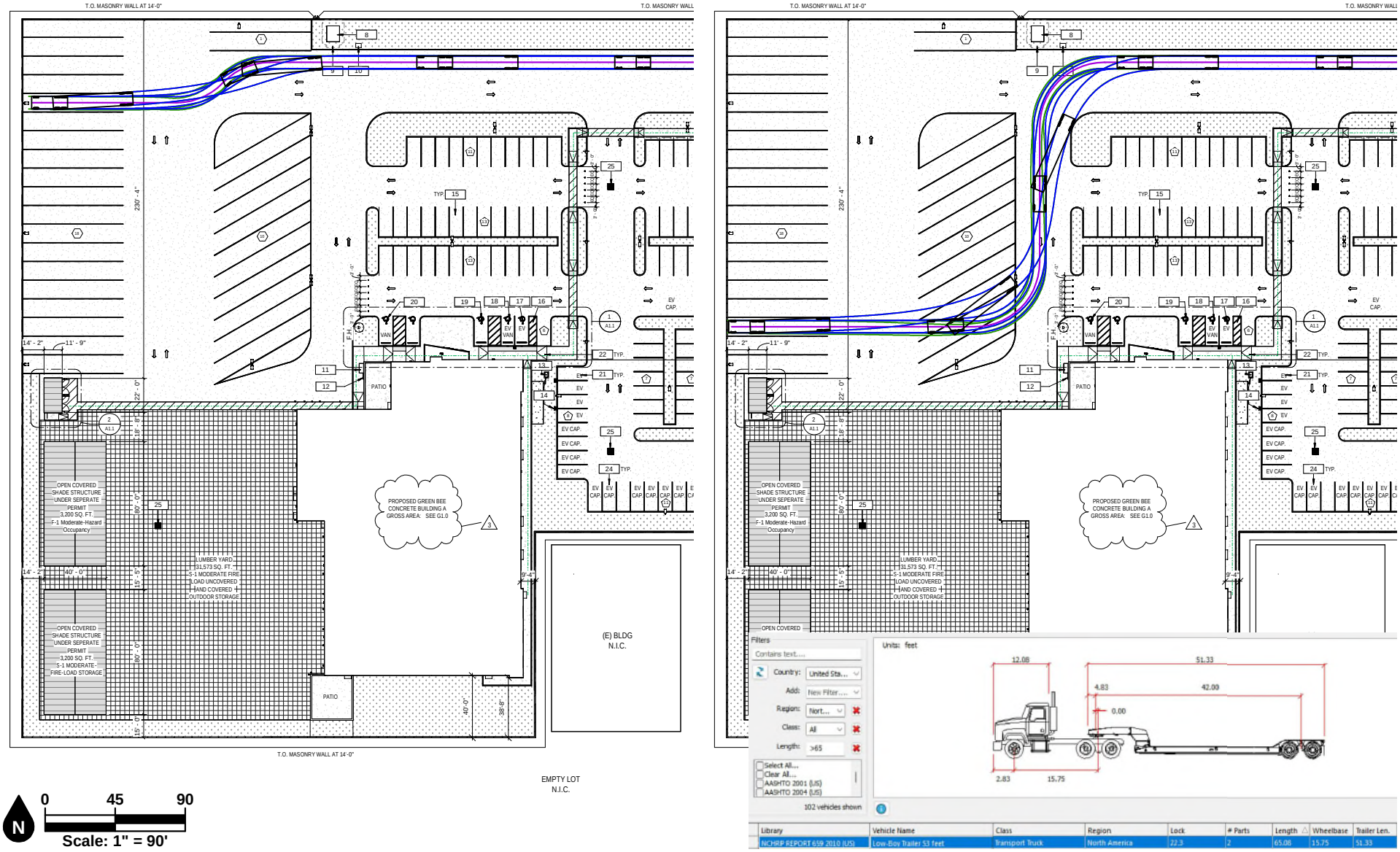


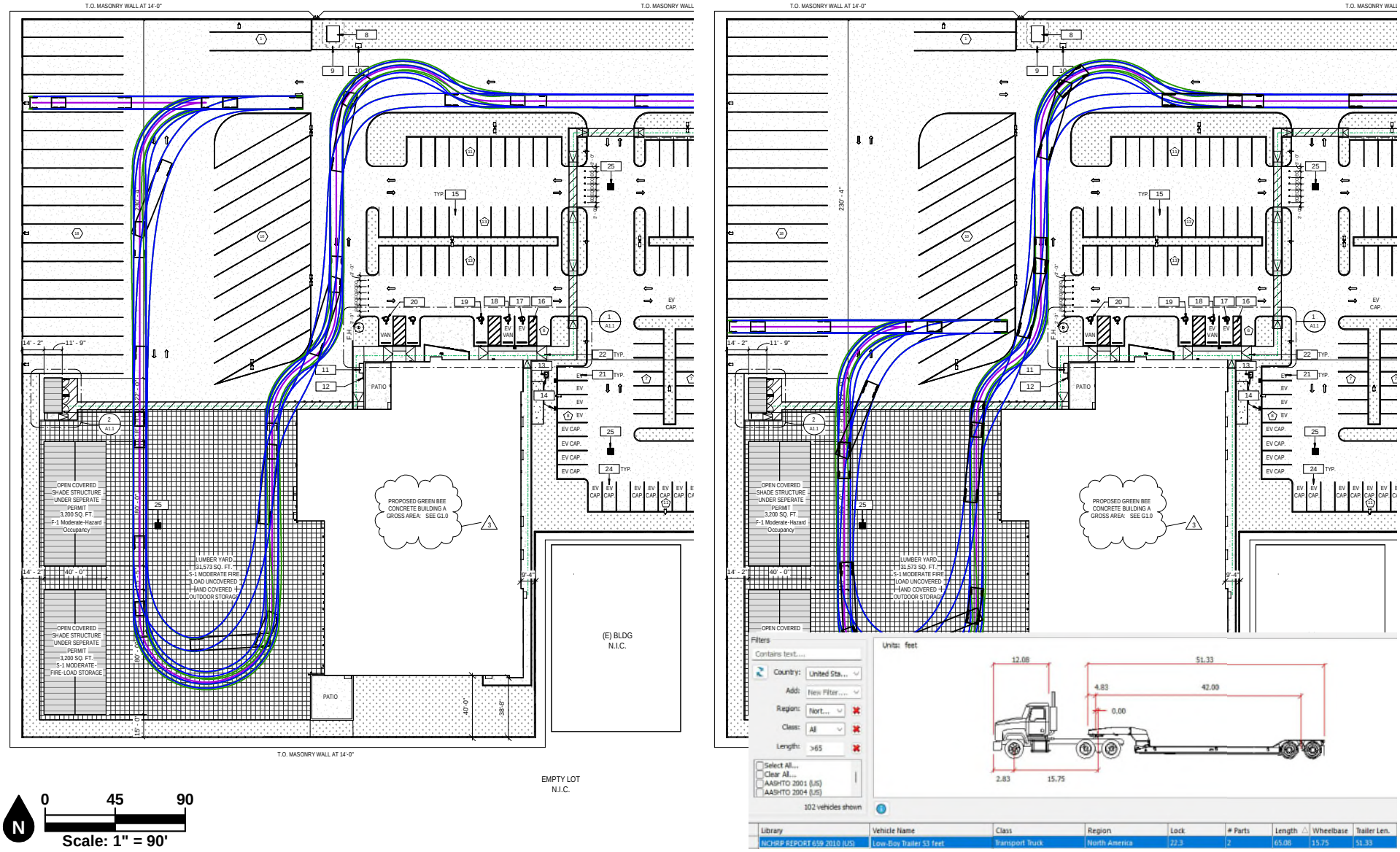
Figure 25
Alternative Internal On-Site Truck Circulation



Legend

- Vehicle Wheel Path
- Vehicle Overhang
- Vehicle Centerline

Figure 26
Internal Inbound Truck Parking Turning Template



N

0 45 90

Scale: 1" = 90'

Legend

- Vehicle Wheel Path
- Vehicle Overhang
- Vehicle Centerline

Figure 27
Internal Outbound Truck Parking Turning Template

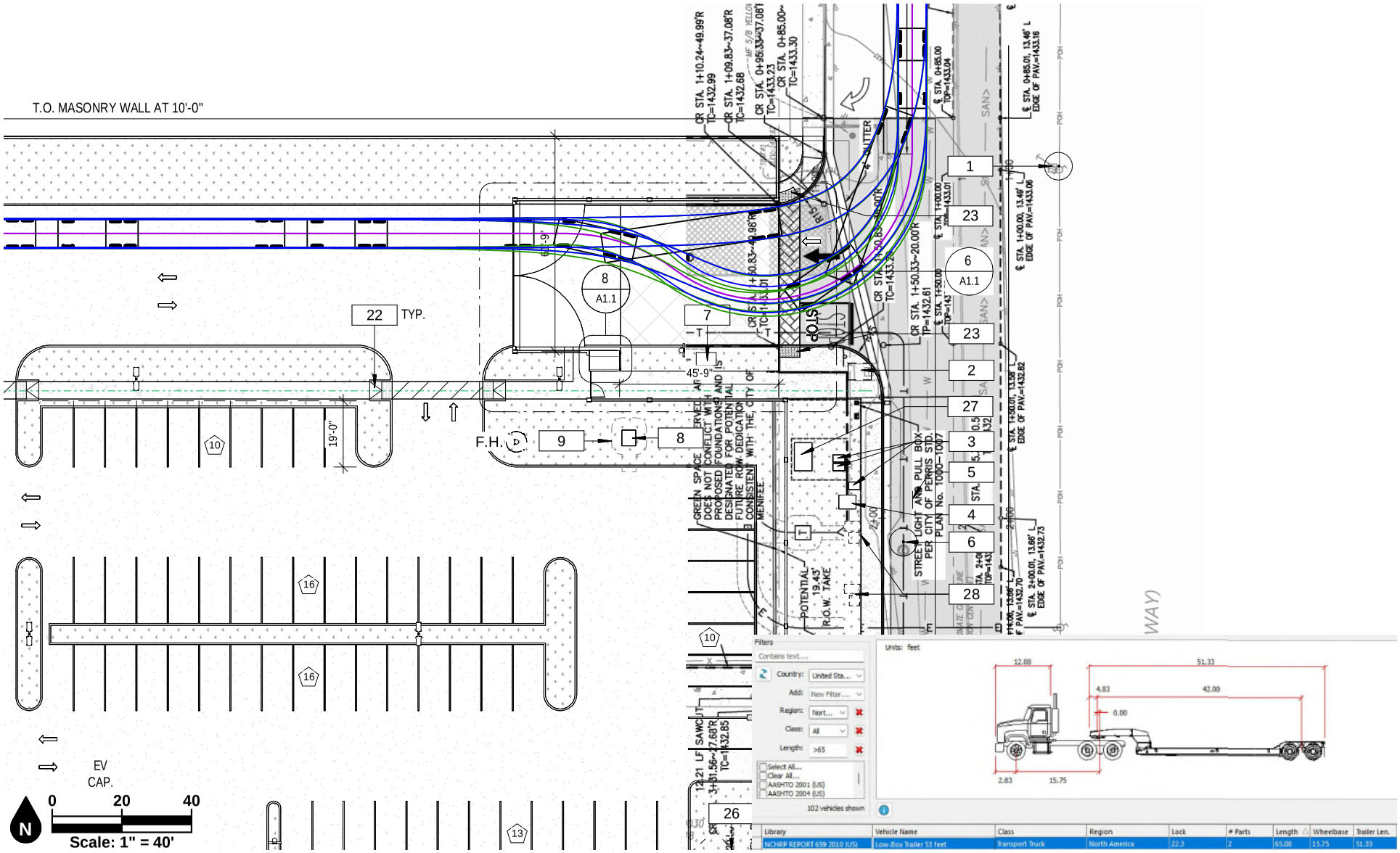


Figure 28
Truck Turning Template - Inbound

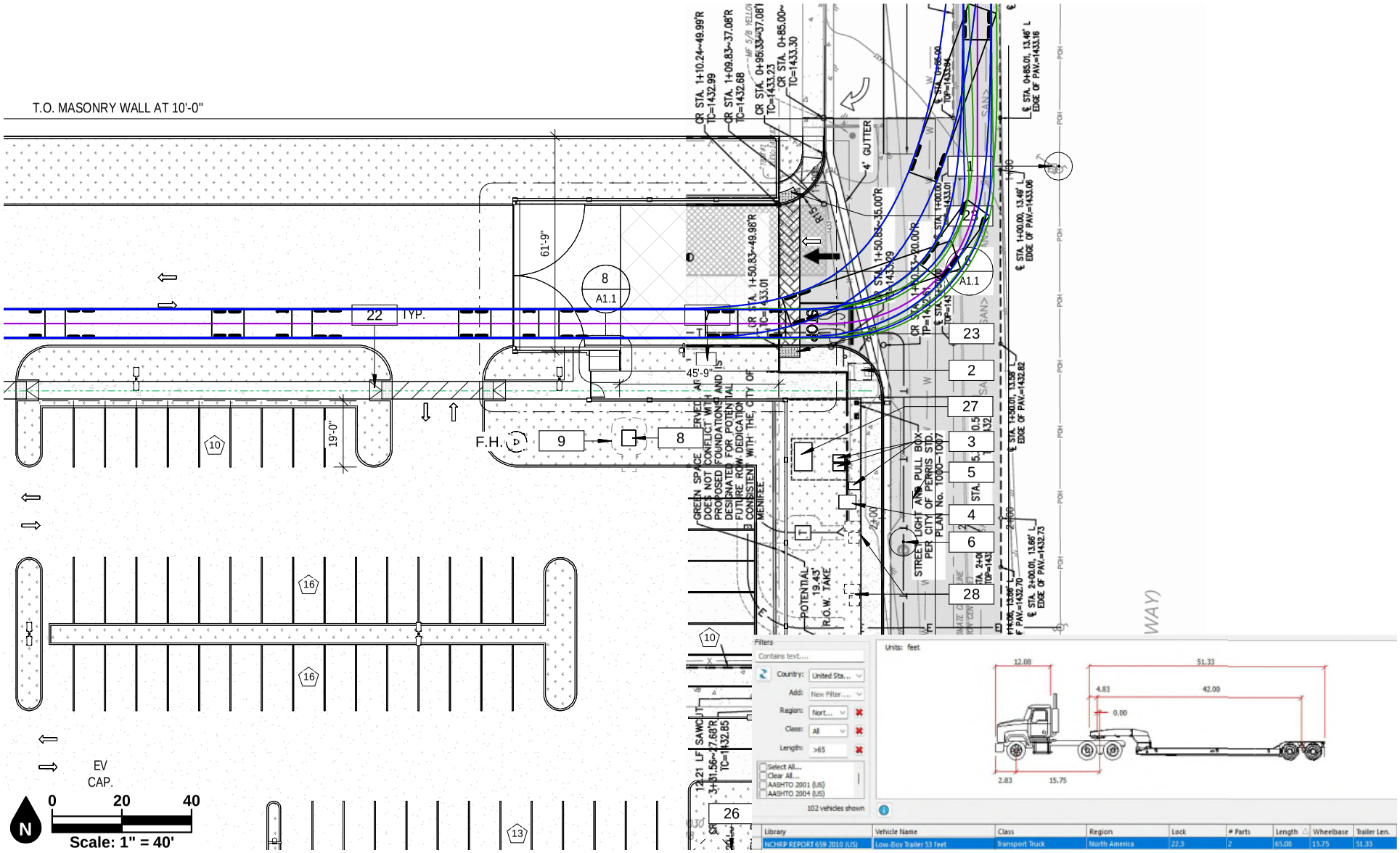
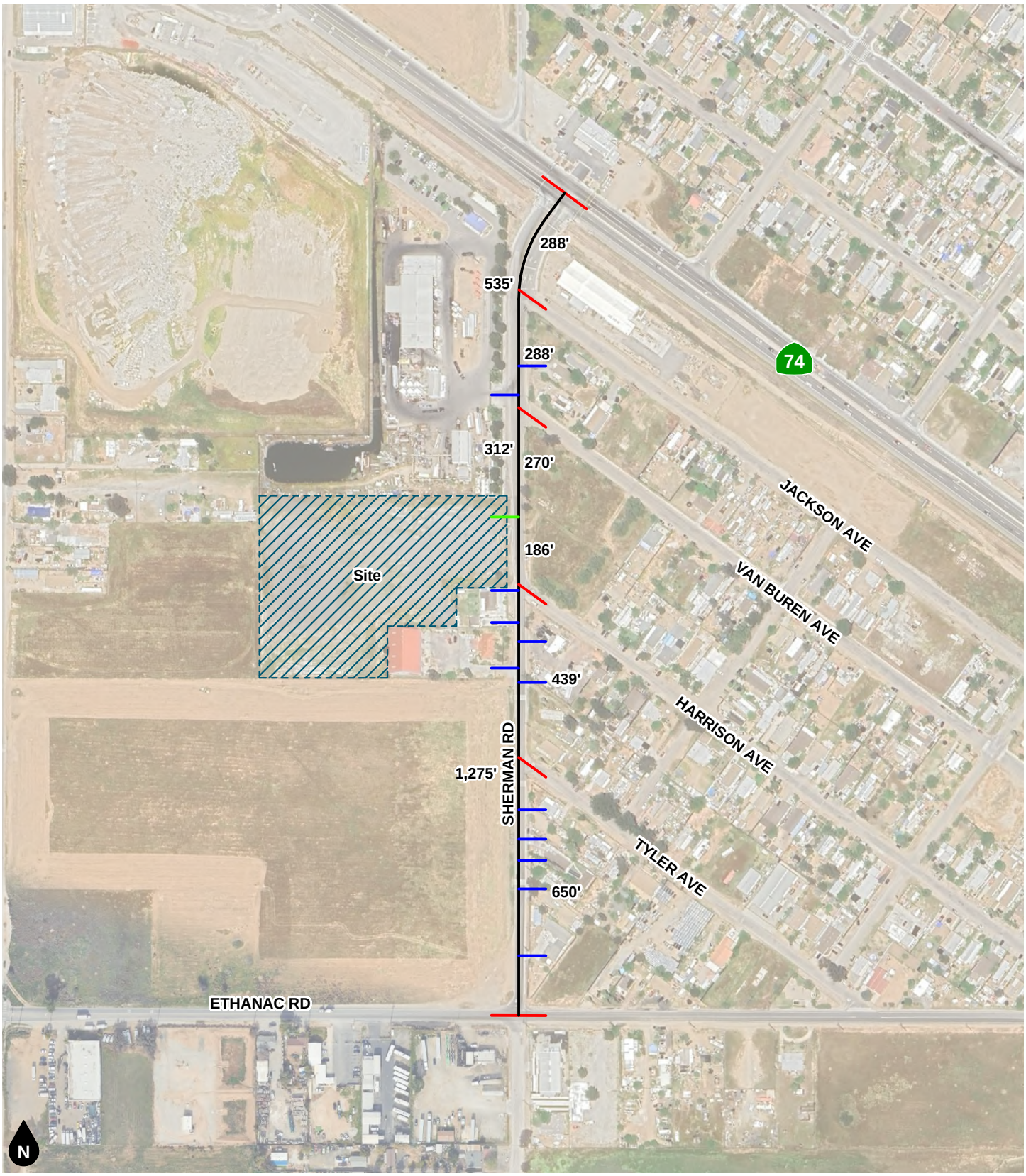


Figure 29
Truck Turning Template - Outbound



Legend
- Public Roadway
- Private Driveway
- Project Driveway

Figure 30
Sherman Road Driveway Spacing

8. VEHICLES MILES TRAVELED (VMT)

BACKGROUND

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts 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. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

VMT ASSESSMENT AND SCREENING

The *PM Design Group Green Bee Contractor Yard (PLN-24-05264) Vehicles Miles Traveled Screening Assessment* (Ganddini Group, May 27, 2026) provides a VMT Screening Assessment for the proposed development. The Screening Assessment concluded that "The proposed project satisfies the City-established VMT screening criteria for projects with net daily trips less than 500 ADT; therefore, the project is exempt from preparation of a detailed VMT analysis and may be presumed to result in a less than significant VMT impact." This document was approved via the *Green Bee Contractor Yard Project (PLN 24-05264) Traffic Submittal Review #3, City of Perris* (RK Engineering Group Inc., May 29, 2026), and no further analysis is required.

9. CONCLUSIONS

This section summarizes the findings and recommended improvements, or mitigation measures (if any) identified in previous sections of this study.

PROJECT TRIP GENERATION

The proposed project is forecast to generate 340 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 37 vehicle trips during the PM peak hour. The proposed project is forecast to generate approximately 426 daily PCE trips, including 44 PCE trips during the AM peak hour and 49 PCE trips during the PM peak hour.

LEVELS OF SERVICE/OPERATIONAL ANALYSIS FINDINGS (NON-CEQA)

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth With Project conditions, except for the following study intersection that is forecast to continue operating at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

The following measure is recommended to address the project's direct impact:

Corrective Measure #1
Prior to certificate of occupancy, if a traffic signal has not been installed at the intersection of Sherman Road at Ethanac Road, the project shall install NO LEFT TURN, 4 PM – 6 PM, MON – FRI signage at the northbound approach, subject to approval by the City of Menifee.

The study intersection of Sherman Road at Ethanac Road [#4], specifically the northbound approach within City of Menifee jurisdiction, is forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth With Project conditions, with implementation of the recommended corrective measure.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth & Cumulative Traffic With Project, except for the following study intersection that is forecast to continue operating at unacceptable Levels of Service (E or F):

- Sherman Road at Ethanac Road - #4 (PM-LOS E)

The following improvements are recommended to maintain acceptable Levels of Service for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions:

- Sherman Road (NS) at Ethanac Road (EW) - #4
  - Install traffic signal
  - Restripe southbound shared left/through/right turn lane to shared left/through lane
  - Construct southbound right turn lane
  - Construct eastbound left turn lane
  - Restripe eastbound shared left/through/right turn lane to shared through/right turn lane

The study intersection of Sherman Road at Ethanac Road [#4] is forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Ambient Growth & Cumulative Traffic With Project conditions, with improvements.

VMT Analysis Findings (CEQA)

The *PM Design Group Green Bee Contractor Yard (PLN-24-05264) Vehicles Miles Traveled Screening Assessment* (Ganddini Group, May 27, 2026) provides a VMT Screening Assessment for the proposed development. The Screening Assessment concluded that: "The proposed project satisfies the City-established VMT screening criteria for projects with net daily trips less than 500 ADT; therefore, the project is exempt from preparation of a detailed VMT analysis and may be presumed to result in a less than significant VMT impact." This document was approved via the *Green Bee Contractor Yard Project (PLN 24-05264) Traffic Submittal Review #3, City of Perris* (RK Engineering Group Inc., May 29, 2026), and no further analysis is required.

APPENDICES

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Volume Count Worksheets
Appendix D Level of Service Worksheets
Appendix E Traffic Signal Warrant Worksheet
Appendix F Sherman Road Conceptual Signing/Striping Plan

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper).

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the "Flashing Don't Walk" interval, it signals the end of pedestrian entry into the crosswalk following the "Walk" indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate. This

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TRUCK: A heavy motor vehicle generally used for transporting goods.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

SCOPING AGREEMENT

City of Perris
www.cityofperris.org

CITY OF PERRIS
TRAFFIC IMPACT ANALYSIS SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation operational impacts, as specified in the *City of Perris TIA Guidelines for LOS and VMT, dated April 2026* .

I. Project Description

Tract/Case No. Preliminary Review 24-05118

Project Name: PM Design Group Green Bee Contractor Yard (PLN24-05264)

Project Location: 25775 Sherman Road

oject Description: 25,028 square feet of contractor yard

ease attach a copy of the project site pla

Current GP Land Use: LI - Light Industrial

Proposed GP Land Use: LI - Light Industrial

Current Zoning: LI - Light Industrial

Proposed Zoning: LI - Light Industrial

Does the project require a general plan amendment or zoning change? No

II. Trip Generation

Trip Generation Evaluation:

Source of Trip Generation: Traffic Counts

Net Project Trip Generation *(After PCE-adjustments, if applic*

AM Peak Hour			PM Peak Hour			Daily
In	Out	Total	In	Out	Total	
28	15	44	19	30	49	426

Please attach a full trip generation calculation for the project. Additionally, provide attachments illustrating the proposed project's trip distribution and project traffic assignment for review (if

III. TIA Screening Criteria

1. **Does the project generate 50 or more net new peak hour trips during either the AM** — No
2. **Does the project generate 2,500 or more net new daily trips?** — No
3. **Is the project land use (e.g., truck-intensive land use over 250,000 sq. ft.) subject to design standards as per Assembly Bill 98 ?** — No
4. **Is the project truck intensive (e.g., warehousing, distribution centers, logistic** — Yes

Level of Service Analysis Required? No

Roadway Segment Analysis Required? No

Horizon Year (General Plan Buildout) Analysis No

Preparation of Truck Routing Plan and AB 98 Analysis No

Site Access Analysis Required? Yes

City of Perris
www.cityofperris.org

IV. Study Area

ID	Study Intersections	Roadway Segments
1.	Sherman Road at Highway 74	
2.	Sherman Road at Project Driveway	
3.	Sherman Road at Harrison Avenue	
4.	Sherman Road at Ethanac Road	
5.		
6.		
7.		
8.		
9.		
10.		

Please include an additional table if needed. Provide an exhibit illustrating the propsoed study area.

V. Other Jurisdictional Impacts

Is this project within one-mile radius of another jurisdiction or a State Yes

If so, name of Agency: **City of Menifee, Caltrans**

VI. Other Special Analyses

Describe other project specific issues to be addressed in the Study.
(In addition to the standard analysis described in the City's TIA

1.	te Access Assessment will be revised based on prior City comments and include
2.	
3.	
4.	

Prepared By		Developer/Applicant	
Company:	Gandinni Group, Inc.	**Company:**	MIG, INC.
Contact:	Bryan Crawford	**Contact:**	Cameron Hile
Address:	555 Parkcenter Drive, Suite 225, Santa	**Address:**	1650 Spruce Street, Suite 106, Riversic
Phone:	(714) - 795-3100 x 104	**Phone:**	(951) 787-9222 x 8180
Email:	Bryan@ganddini.com	**Email:**	cameronh@migcom.com
Date:	5/22/2026	**Date:**	46164

Approved by:

Perris Planning Division	Date	Perris City Engineer	Date

Table 1 (1 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	2	0	0	0	2
3:30 AM - 3:45 AM	4	0	0	0	4	0	0	0	0	0	3	0	0	0	3	3	0	0	0	3
3:45 AM - 4:00 AM	4	0	0	0	4	0	0	1	0	1	2	0	0	0	2	2	0	1	0	3
4:00 AM - 4:15 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2
4:15 AM - 4:30 AM	2	0	0	0	2	5	0	0	0	5	1	0	0	0	1	3	0	0	0	3
4:30 AM - 4:45 AM	1	0	0	0	1	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2
4:45 AM - 5:00 AM	5	0	0	0	5	2	2	0	0	4	3	0	0	0	3	4	1	0	0	5
5:00 AM - 5:15 AM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	1	1	0	0	2
5:15 AM - 5:30 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2
5:30 AM - 5:45 AM	0	0	0	0	0	1	1	0	0	2	3	0	0	0	3	2	1	0	0	3
5:45 AM - 6:00 AM	4	0	0	0	4	2	0	0	0	2	2	1	0	0	3	3	1	0	0	4
6:00 AM - 6:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
6:15 AM - 6:30 AM	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
6:30 AM - 6:45 AM	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
6:45 AM - 7:00 AM	4	2	0	0	6	7	0	0	0	7	9	1	0	0	10	7	1	0	0	8
7:00 AM - 7:15 AM	3	0	1	0	4	5	0	0	0	5	3	0	0	0	3	4	0	1	0	5
7:15 AM - 7:30 AM	2	0	0	0	2	1	1	0	0	2	5	0	0	0	5	3	1	0	0	4
7:30 AM - 7:45 AM	3	0	1	0	4	5	0	0	0	5	1	0	0	0	1	3	0	1	0	4
7:45 AM - 8:00 AM	6	1	0	0	7	1	0	0	0	1	7	0	0	0	7	5	1	0	0	6
8:00 AM - 8:15 AM	2	1	0	0	3	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:15 AM - 8:30 AM	4	0	0	0	4	5	1	0	0	6	0	0	0	0	0	3	1	0	0	4
8:30 AM - 8:45 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
8:45 AM - 9:00 AM	0	1	1	0	2	3	0	0	0	3	1	0	0	0	1	2	1	1	0	4
9:00 AM - 9:15 AM	3	1	0	0	4	2	1	0	0	3	2	1	0	0	3	3	1	0	0	4

Table 1 (2 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:15 AM - 9:30 AM	2	0	0	0	2	3	0	2	0	5	1	0	0	0	1	2	0	1	0	3
9:30 AM - 9:45 AM	1	1	0	0	2	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2
9:45 AM - 10:00 AM	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	1	0	0	0	1	1	0	0	1	2	2	0	0	0	2	2	0	0	1	3
10:45 AM - 11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
11:00 AM - 11:15 AM	0	0	1	0	1	1	0	0	0	1	1	0	0	0	1	1	0	1	0	2
11:15 AM - 11:30 AM	1	2	0	0	3	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
11:45 AM - 12:00 PM	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	2	1	0	0	3
12:00 PM - 12:15 PM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
12:15 PM - 12:30 PM	1	0	0	0	1	1	0	1	0	2	3	0	0	0	3	2	0	1	0	3
12:30 PM - 12:45 PM	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2	1	0	1	0	2
12:45 PM - 1:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2	1	1	1	1	4
1:00 PM - 1:15 PM	2	1	0	0	3	0	0	0	1	1	1	0	0	0	1	1	1	0	1	3
1:15 PM - 1:30 PM	4	1	1	0	6	2	1	0	1	4	0	0	0	1	1	2	1	1	1	5
1:30 PM - 1:45 PM	0	0	0	0	0	4	0	0	0	4	0	1	1	0	2	2	1	1	0	4
1:45 PM - 2:00 PM	2	0	0	0	2	4	1	0	0	5	0	1	0	0	1	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	1	2	2	0	0	4	1	1	1	0	3
2:15 PM - 2:30 PM	1	1	1	1	4	0	0	0	0	0	1	0	1	0	2	1	1	1	1	4
2:30 PM - 2:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2
2:45 PM - 3:00 PM	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	1	1	0	0	2
3:00 PM - 3:15 PM	1	0	0	0	1	1	0	2	0	3	0	2	1	0	3	1	1	1	0	3
3:15 PM - 3:30 PM	1	0	0	0	1	1	1	1	0	3	1	2	0	1	4	1	1	1	1	4
3:30 PM - 3:45 PM	0	0	1	0	1	3	1	0	1	5	2	0	0	0	2	2	1	1	1	5
3:45 PM - 4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
4:00 PM - 4:15 PM	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	1	1	1	0	3
4:15 PM - 4:30 PM	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1
4:45 PM - 5:00 PM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	1	1	1	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	1	0	1	1	3
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	1	0	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1

Table 1 (3 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:30 PM - 6:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:45 PM - 7:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
11:45 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
Daily	84	19	11	2	116	90	23	10	5	128	87	17	9	4	117	87	20	10	4	121
AM Peak Hour*	7:00 AM - 8:00 AM															15	2	2	0	19
PM Peak Hour*	4:15 PM - 5:15 PM															3	2	3	1	9

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 2 (1 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	2
3:45 AM - 4:00 AM	0	1	0	1	2	0	2	0	1	3	0	0	0	0	0	0	1	0	1	2
4:00 AM - 4:15 AM	0	0	0	2	2	0	0	0	0	0	1	2	0	0	3	1	1	0	1	3
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
4:30 AM - 4:45 AM	0	1	1	0	2	0	1	0	1	2	0	0	2	0	2	0	1	1	1	3
4:45 AM - 5:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
5:00 AM - 5:15 AM	1	0	1	0	2	1	2	0	0	3	0	1	0	0	1	1	1	1	0	3
5:15 AM - 5:30 AM	0	2	0	0	2	0	1	3	0	4	1	2	3	0	6	1	2	2	0	5
5:30 AM - 5:45 AM	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	1	0	2
5:45 AM - 6:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	2
6:00 AM - 6:15 AM	2	0	1	0	3	1	2	1	0	4	0	2	1	0	3	1	2	1	0	4
6:15 AM - 6:30 AM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
6:30 AM - 6:45 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
6:45 AM - 7:00 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	1	1	0	0	2
7:00 AM - 7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
7:15 AM - 7:30 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	1	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:00 AM - 8:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8:15 AM - 8:30 AM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2

Table 2 (2 of 3)
Survey Site Inbound Trips Generated Summary

	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
9:00 AM - 9:15 AM	2	0	1	0	3	0	2	0	0	2	1	0	0	0	1	1	1	1	0	3
9:15 AM - 9:30 AM	0	1	0	0	1	1	1	1	0	3	2	1	0	0	3	1	1	1	0	3
9:30 AM - 9:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:45 AM - 10:00 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
10:00 AM - 10:15 AM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
10:45 AM - 11:00 AM	1	0	0	0	1	1	0	1	0	2	1	0	0	0	1	1	0	1	0	2
11:00 AM - 11:15 AM	2	0	0	0	2	1	1	0	0	2	2	0	0	0	2	2	1	0	0	3
11:15 AM - 11:30 AM	2	0	0	0	2	2	1	0	0	3	2	0	0	0	2	2	1	0	0	3
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	0	2	2	0	0	0	2	2	0	1	0	3
11:45 AM - 12:00 PM	2	0	0	0	2	2	0	0	1	3	1	0	0	0	1	2	0	0	1	3
12:00 PM - 12:15 PM	2	0	0	0	2	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
12:15 PM - 12:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
12:30 PM - 12:45 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	0	0	0	1
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	0	1
1:00 PM - 1:15 PM	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
1:15 PM - 1:30 PM	4	0	0	0	4	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2
1:30 PM - 1:45 PM	4	0	0	0	4	3	0	1	0	4	0	0	0	1	1	3	0	1	1	5
1:45 PM - 2:00 PM	1	1	0	0	2	1	0	0	0	1	2	0	0	0	2	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
2:15 PM - 2:30 PM	0	0	0	0	0	4	0	0	0	4	1	1	0	0	2	2	1	0	0	3
2:30 PM - 2:45 PM	5	1	1	0	7	2	1	0	0	3	2	0	0	0	2	3	1	1	0	5
2:45 PM - 3:00 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3
3:00 PM - 3:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
3:15 PM - 3:30 PM	3	0	0	0	3	6	0	0	0	6	3	0	0	0	3	4	0	0	0	4
3:30 PM - 3:45 PM	2	0	0	0	2	7	1	0	0	8	8	1	0	0	9	6	1	0	0	7
3:45 PM - 4:00 PM	4	0	0	0	4	12	0	0	0	12	7	0	0	0	7	8	0	0	0	8
4:00 PM - 4:15 PM	7	0	0	0	7	5	0	0	0	5	2	0	0	0	2	5	0	0	0	5
4:15 PM - 4:30 PM	3	0	0	0	3	4	0	0	0	4	1	2	0	0	3	3	1	0	0	4
4:30 PM - 4:45 PM	5	0	0	0	5	4	1	0	0	5	5	0	0	0	5	5	1	0	0	6
4:45 PM - 5:00 PM	2	0	0	0	2	3	1	0	0	4	5	0	0	0	5	4	1	0	0	5
5:00 PM - 5:15 PM	6	0	0	0	6	6	0	0	0	6	5	0	0	0	5	6	0	0	0	6
5:15 PM - 5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1

Table 2 (3 of 3)
Survey Site Inbound Trips Generated Summary

	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
5:30 PM - 5:45 PM	0	0	0	0	0	1	0	0	0	1	6	0	0	0	6	3	0	0	0	3
5:45 PM - 6:00 PM	2	0	0	0	2	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
7:00 PM - 7:15 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
7:15 PM - 7:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Daily	84	19	7	3	113	92	23	12	3	130	82	18	10	4	114	86	20	10	4	120
AM Peak Hour*	7:00 AM - 8:00 AM															4	4	1	0	9
PM Peak Hour*	4:15 PM - 5:15 PM															18	3	0	0	21

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 3 (1 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
12:00 AM - 12:15 AM	0	0	0
12:15 AM - 12:30 AM	0	0	0
12:30 AM - 12:45 AM	0	0	0
12:45 AM - 1:00 AM	0	0	0
1:00 AM - 1:15 AM	0	0	0
1:15 AM - 1:30 AM	0	0	0
1:30 AM - 1:45 AM	0	0	0
1:45 AM - 2:00 AM	0	0	0
2:00 AM - 2:15 AM	0	0	0
2:15 AM - 2:30 AM	0	0	0
2:30 AM - 2:45 AM	0	0	0
2:45 AM - 3:00 AM	0	0	0
3:00 AM - 3:15 AM	0	0	0
3:15 AM - 3:30 AM	1	0	1
3:30 AM - 3:45 AM	2	1	2
3:45 AM - 4:00 AM	1	0	1
4:00 AM - 4:15 AM	0	0	0
4:15 AM - 4:30 AM	0	1	1
4:30 AM - 4:45 AM	1	0	1
4:45 AM - 5:00 AM	5	5	5
5:00 AM - 5:15 AM	0	3	2
5:15 AM - 5:30 AM	0	0	0
5:30 AM - 5:45 AM	0	4	2
5:45 AM - 6:00 AM	2	2	2
6:00 AM - 6:15 AM	0	0	0
6:15 AM - 6:30 AM	0	0	0
6:30 AM - 6:45 AM	0	2	1
6:45 AM - 7:00 AM	7	10	9
7:00 AM - 7:15 AM	8	2	5
7:15 AM - 7:30 AM	0	0	0
7:30 AM - 7:45 AM	0	0	0
7:45 AM - 8:00 AM	0	0	0
8:00 AM - 8:15 AM	0	0	0
8:15 AM - 8:30 AM	0	0	0
8:30 AM - 8:45 AM	1	0	1
8:45 AM - 9:00 AM	3	2	3

	Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
	Pedestrians	Pedestrians	Pedestrians
12:00 AM - 12:15 AM	0	0	0
12:15 AM - 12:30 AM	0	0	0
12:30 AM - 12:45 AM	0	0	0
12:45 AM - 1:00 AM	0	0	0
1:00 AM - 1:15 AM	0	0	0
1:15 AM - 1:30 AM	0	0	0
1:30 AM - 1:45 AM	0	0	0
1:45 AM - 2:00 AM	0	0	0
2:00 AM - 2:15 AM	0	0	0
2:15 AM - 2:30 AM	0	0	0
2:30 AM - 2:45 AM	0	0	0
2:45 AM - 3:00 AM	0	0	0
3:00 AM - 3:15 AM	0	0	0
3:15 AM - 3:30 AM	0	0	0
3:30 AM - 3:45 AM	0	0	0
3:45 AM - 4:00 AM	0	0	0
4:00 AM - 4:15 AM	0	0	0
4:15 AM - 4:30 AM	0	0	0
4:30 AM - 4:45 AM	0	0	0
4:45 AM - 5:00 AM	0	0	0
5:00 AM - 5:15 AM	0	0	0
5:15 AM - 5:30 AM	0	0	0
5:30 AM - 5:45 AM	0	1	1
5:45 AM - 6:00 AM	0	0	0
6:00 AM - 6:15 AM	0	0	0
6:15 AM - 6:30 AM	0	0	0
6:30 AM - 6:45 AM	0	0	0
6:45 AM - 7:00 AM	1	0	1
7:00 AM - 7:15 AM	0	0	0
7:15 AM - 7:30 AM	0	0	0
7:30 AM - 7:45 AM	0	0	0
7:45 AM - 8:00 AM	0	0	0
8:00 AM - 8:15 AM	0	0	0
8:15 AM - 8:30 AM	0	0	0
8:30 AM - 8:45 AM	1	0	1
8:45 AM - 9:00 AM	0	0	0

Table 3 (2 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
9:00 AM - 9:15 AM	1	1	1
9:15 AM - 9:30 AM	0	3	2
9:30 AM - 9:45 AM	0	0	0
9:45 AM - 10:00 AM	5	3	4
10:00 AM - 10:15 AM	1	0	1
10:15 AM - 10:30 AM	1	1	1
10:30 AM - 10:45 AM	0	0	0
10:45 AM - 11:00 AM	0	0	0
11:00 AM - 11:15 AM	0	1	1
11:15 AM - 11:30 AM	1	2	2
11:30 AM - 11:45 AM	1	0	1
11:45 AM - 12:00 PM	0	0	0
12:00 PM - 12:15 PM	1	0	1
12:15 PM - 12:30 PM	0	2	1
12:30 PM - 12:45 PM	2	0	1
12:45 PM - 1:00 PM	0	0	0
1:00 PM - 1:15 PM	0	0	0
1:15 PM - 1:30 PM	2	2	2
1:30 PM - 1:45 PM	2	0	1
1:45 PM - 2:00 PM	0	0	0
2:00 PM - 2:15 PM	0	0	0
2:15 PM - 2:30 PM	0	0	0
2:30 PM - 2:45 PM	0	0	0
2:45 PM - 3:00 PM	1	0	1
3:00 PM - 3:15 PM	0	0	0
3:15 PM - 3:30 PM	0	0	0
3:30 PM - 3:45 PM	0	1	1
3:45 PM - 4:00 PM	0	0	0
4:00 PM - 4:15 PM	0	0	0
4:15 PM - 4:30 PM	0	0	0
4:30 PM - 4:45 PM	1	0	1
4:45 PM - 5:00 PM	0	0	0
5:00 PM - 5:15 PM	0	0	0
5:15 PM - 5:30 PM	0	0	0
5:30 PM - 5:45 PM	0	0	0
5:45 PM - 6:00 PM	0	0	0

	Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
	Pedestrians	Pedestrians	Pedestrians
	0	3	2
	3	0	2
	1	3	2
	2	0	1
	1	1	1
	0	0	0
	2	1	2
	0	0	0
	2	3	3
	0	0	0
	0	0	0
	0	0	0
	0	1	1
	1	1	1
	0	0	0
	1	0	1
	4	4	4
	1	0	1
	0	0	0
	0	0	0
	2	2	2
	1	0	1
	0	3	2
	1	0	1
	3	2	3
	2	1	2
	15	13	14
	0	0	0
	1	0	1
	0	0	0
	1	1	1
	0	3	2
	4	1	3
	1	1	1
	1	2	2
	0	0	0

Table 3 (3 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
6:00 PM - 6:15 PM	0	0	0
6:15 PM - 6:30 PM	0	0	0
6:30 PM - 6:45 PM	0	0	0
6:45 PM - 7:00 PM	0	0	0
7:00 PM - 7:15 PM	0	0	0
7:15 PM - 7:30 PM	0	0	0
7:30 PM - 7:45 PM	0	0	0
7:45 PM - 8:00 PM	0	0	0
8:00 PM - 8:15 PM	0	0	0
8:15 PM - 8:30 PM	0	0	0
8:30 PM - 8:45 PM	0	0	0
8:45 PM - 9:00 PM	0	0	0
9:00 PM - 9:15 PM	0	0	0
9:15 PM - 9:30 PM	0	0	0
9:30 PM - 9:45 PM	0	0	0
9:45 PM - 10:00 PM	0	0	0
10:00 PM - 10:15 PM	0	0	0
10:15 PM - 10:30 PM	0	0	0
10:30 PM - 10:45 PM	0	0	0
10:45 PM - 11:00 PM	0	0	0
11:00 PM - 11:15 PM	0	0	0
11:15 PM - 11:30 PM	0	0	0
11:30 PM - 11:45 PM	0	0	0
11:45 PM - 12:00 AM	0	0	0
Daily	50	48	49

Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Pedestrians	Pedestrians	Pedestrians
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
52	47	50

Table 4 (1 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
3:15 AM - 3:30 AM	1	0	0	0	1	2	0	0	0	2	5	0	0	0	5	3	0	0	0	3
3:30 AM - 3:45 AM	6	0	0	0	6	2	0	0	0	2	5	0	0	0	5	5	0	0	0	5
3:45 AM - 4:00 AM	5	0	0	0	5	1	0	1	0	2	3	0	0	0	3	3	0	1	0	4
4:00 AM - 4:15 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2
4:15 AM - 4:30 AM	3	0	0	0	3	6	0	0	0	6	2	0	0	0	2	4	0	0	0	4
4:30 AM - 4:45 AM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
4:45 AM - 5:00 AM	10	0	0	0	10	7	2	0	0	9	8	0	0	0	8	9	1	0	0	10
5:00 AM - 5:15 AM	2	0	0	0	2	3	2	0	0	5	4	0	0	0	4	3	1	0	0	4
5:15 AM - 5:30 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2
5:30 AM - 5:45 AM	2	0	0	0	2	3	1	0	0	4	5	0	0	0	5	4	1	0	0	5
5:45 AM - 6:00 AM	6	0	0	0	6	4	0	0	0	4	4	1	0	0	5	5	1	0	0	6
6:00 AM - 6:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
6:15 AM - 6:30 AM	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
6:30 AM - 6:45 AM	5	0	0	0	5	3	0	0	0	3	1	0	0	0	1	3	0	0	0	3
6:45 AM - 7:00 AM	13	2	0	0	15	16	0	0	0	16	18	1	0	0	19	16	1	0	0	17
7:00 AM - 7:15 AM	8	0	1	0	9	10	0	0	0	10	8	0	0	0	8	9	0	1	0	10
7:15 AM - 7:30 AM	2	0	0	0	2	1	1	0	0	2	5	0	0	0	5	3	1	0	0	4
7:30 AM - 7:45 AM	3	0	1	0	4	5	0	0	0	5	1	0	0	0	1	3	0	1	0	4
7:45 AM - 8:00 AM	6	1	0	0	7	1	0	0	0	1	7	0	0	0	7	5	1	0	0	6
8:00 AM - 8:15 AM	2	1	0	0	3	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:15 AM - 8:30 AM	4	0	0	0	4	5	1	0	0	6	0	0	0	0	0	3	1	0	0	4
8:30 AM - 8:45 AM	5	0	0	0	5	1	0	0	0	1	1	0	0	0	1	3	0	0	0	3
8:45 AM - 9:00 AM	3	1	1	0	5	6	0	0	0	6	4	0	0	0	4	5	1	1	0	7

Table 4 (2 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	4	1	0	0	5	3	1	0	0	4	3	1	0	0	4	4	1	0	0	5
9:15 AM - 9:30 AM	4	0	0	0	4	5	0	2	0	7	3	0	0	0	3	4	0	1	0	5
9:30 AM - 9:45 AM	1	1	0	0	2	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2
9:45 AM - 10:00 AM	5	0	0	0	5	5	0	0	0	5	6	0	0	0	6	6	0	0	0	6
10:00 AM - 10:15 AM	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
10:15 AM - 10:30 AM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	1	0	0	0	1	1	0	0	1	2	2	0	0	0	2	2	0	0	1	3
10:45 AM - 11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
11:00 AM - 11:15 AM	1	0	1	0	2	2	0	0	0	2	2	0	0	0	2	2	0	1	0	3
11:15 AM - 11:30 AM	3	2	0	0	5	2	1	0	0	3	3	0	0	0	3	3	1	0	0	4
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	1	3	1	0	0	0	1	1	0	1	1	3
11:45 AM - 12:00 PM	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	2	1	0	0	3
12:00 PM - 12:15 PM	3	0	0	0	3	4	0	0	0	4	3	0	0	0	3	4	0	0	0	4
12:15 PM - 12:30 PM	2	0	0	0	2	2	0	1	0	3	4	0	0	0	4	3	0	1	0	4
12:30 PM - 12:45 PM	3	0	0	0	3	1	0	0	0	1	2	0	1	0	3	2	0	1	0	3
12:45 PM - 1:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2	1	1	1	1	4
1:00 PM - 1:15 PM	2	1	0	0	3	0	0	0	1	1	1	0	0	0	1	1	1	0	1	3
1:15 PM - 1:30 PM	6	1	1	0	8	4	1	0	1	6	2	0	0	1	3	4	1	1	1	7
1:30 PM - 1:45 PM	1	0	0	0	1	5	0	0	0	5	1	1	1	0	3	3	1	1	0	5
1:45 PM - 2:00 PM	2	0	0	0	2	4	1	0	0	5	0	1	0	0	1	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	1	2	2	0	0	4	1	1	1	0	3
2:15 PM - 2:30 PM	1	1	1	1	4	0	0	0	0	0	1	0	1	0	2	1	1	1	1	4
2:30 PM - 2:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2
2:45 PM - 3:00 PM	1	1	0	0	2	2	1	0	0	3	1	1	0	0	2	2	1	0	0	3
3:00 PM - 3:15 PM	1	0	0	0	1	1	0	2	0	3	0	2	1	0	3	1	1	1	0	3
3:15 PM - 3:30 PM	1	0	0	0	1	1	1	1	0	3	1	2	0	1	4	1	1	1	1	4
3:30 PM - 3:45 PM	1	0	1	0	2	4	1	0	1	6	3	0	0	0	3	3	1	1	1	6
3:45 PM - 4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
4:00 PM - 4:15 PM	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	1	1	1	0	3
4:15 PM - 4:30 PM	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
4:30 PM - 4:45 PM	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
4:45 PM - 5:00 PM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	1	1	1	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	1	0	1	1	3
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	1	0	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1

Table 4 (3 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:30 PM - 6:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:45 PM - 7:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
11:45 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
Daily	133	19	11	2	174	139	23	10	5	186	136	17	9	4	166	136	20	10	4	170
AM Peak Hour*	7:00 AM - 8:00 AM															20	2	2	0	24
PM Peak Hour*	4:15 PM - 5:15 PM															4	2	3	1	10

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 5 (1 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	2
3:45 AM - 4:00 AM	0	1	0	1	2	0	2	0	1	3	0	0	0	0	0	0	1	0	1	2
4:00 AM - 4:15 AM	0	0	0	2	2	0	0	0	0	0	1	2	0	0	3	1	1	0	1	3
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
4:30 AM - 4:45 AM	0	1	1	0	2	0	1	0	1	2	0	0	2	0	2	0	1	1	1	3
4:45 AM - 5:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
5:00 AM - 5:15 AM	1	0	1	0	2	1	2	0	0	3	0	1	0	0	1	1	1	1	0	3
5:15 AM - 5:30 AM	0	2	0	0	2	0	1	3	0	4	1	2	3	0	6	1	2	2	0	5
5:30 AM - 5:45 AM	1	1	0	0	2	1	0	1	0	2	1	1	0	0	2	1	1	1	0	3
5:45 AM - 6:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	2
6:00 AM - 6:15 AM	2	0	1	0	3	1	2	1	0	4	0	2	1	0	3	1	2	1	0	4
6:15 AM - 6:30 AM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
6:30 AM - 6:45 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
6:45 AM - 7:00 AM	1	0	0	0	1	1	2	0	0	3	2	0	0	0	2	2	1	0	0	3
7:00 AM - 7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
7:15 AM - 7:30 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	1	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:00 AM - 8:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8:15 AM - 8:30 AM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2
8:30 AM - 8:45 AM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
8:45 AM - 9:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3

Table 5 (2 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	4	0	1	0	5	2	2	0	0	4	3	0	0	0	3	3	1	1	0	5
9:15 AM - 9:30 AM	2	1	0	0	3	3	1	1	0	5	4	1	0	0	5	3	1	1	0	5
9:30 AM - 9:45 AM	2	1	0	0	3	2	0	0	0	2	2	0	0	0	2	2	1	0	0	3
9:45 AM - 10:00 AM	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2
10:00 AM - 10:15 AM	1	0	0	0	1	3	0	0	0	3	2	0	0	0	2	2	0	0	0	2
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
10:45 AM - 11:00 AM	1	0	0	0	1	1	0	1	0	2	1	0	0	0	1	1	0	1	0	2
11:00 AM - 11:15 AM	5	0	0	0	5	4	1	0	0	5	5	0	0	0	5	5	1	0	0	6
11:15 AM - 11:30 AM	2	0	0	0	2	2	1	0	0	3	2	0	0	0	2	2	1	0	0	3
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	0	2	2	0	0	0	2	2	0	1	0	3
11:45 AM - 12:00 PM	2	0	0	0	2	2	0	0	1	3	1	0	0	0	1	2	0	0	1	3
12:00 PM - 12:15 PM	3	0	0	0	3	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3
12:15 PM - 12:30 PM	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2	2	0	0	0	2
12:30 PM - 12:45 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	0	0	0	1
12:45 PM - 1:00 PM	1	0	0	0	1	1	0	0	0	1	1	0	2	0	3	1	0	1	0	2
1:00 PM - 1:15 PM	7	0	0	0	7	6	0	0	0	6	4	0	0	0	4	6	0	0	0	6
1:15 PM - 1:30 PM	5	0	0	0	5	2	0	0	0	2	2	0	0	0	2	3	0	0	0	3
1:30 PM - 1:45 PM	4	0	0	0	4	3	0	1	0	4	0	0	0	1	1	3	0	1	1	5
1:45 PM - 2:00 PM	1	1	0	0	2	1	0	0	0	1	2	0	0	0	2	2	1	0	0	3
2:00 PM - 2:15 PM	2	0	0	0	2	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
2:15 PM - 2:30 PM	1	0	0	0	1	5	0	0	0	5	2	1	0	0	3	3	1	0	0	4
2:30 PM - 2:45 PM	7	1	1	0	9	4	1	0	0	5	4	0	0	0	4	5	1	1	0	7
2:45 PM - 3:00 PM	2	1	1	0	4	1	0	0	0	1	1	0	0	0	1	2	1	1	0	4
3:00 PM - 3:15 PM	3	0	0	0	3	4	0	0	0	4	3	0	0	0	3	4	0	0	0	4
3:15 PM - 3:30 PM	5	0	0	0	5	8	0	0	0	8	5	0	0	0	5	6	0	0	0	6
3:30 PM - 3:45 PM	16	0	0	0	16	21	1	0	0	22	22	1	0	0	23	20	1	0	0	21
3:45 PM - 4:00 PM	4	0	0	0	4	12	0	0	0	12	7	0	0	0	7	8	0	0	0	8
4:00 PM - 4:15 PM	8	0	0	0	8	6	0	0	0	6	3	0	0	0	3	6	0	0	0	6
4:15 PM - 4:30 PM	3	0	0	0	3	4	0	0	0	4	1	2	0	0	3	3	1	0	0	4
4:30 PM - 4:45 PM	6	0	0	0	6	5	1	0	0	6	6	0	0	0	6	6	1	0	0	7
4:45 PM - 5:00 PM	4	0	0	0	4	5	1	0	0	6	7	0	0	0	7	6	1	0	0	7
5:00 PM - 5:15 PM	9	0	0	0	9	9	0	0	0	9	8	0	0	0	8	9	0	0	0	9
5:15 PM - 5:30 PM	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
5:30 PM - 5:45 PM	2	0	0	0	2	3	0	0	0	3	8	0	0	0	8	5	0	0	0	5
5:45 PM - 6:00 PM	2	0	0	0	2	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3

Table 5 (3 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
7:00 PM - 7:15 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
7:15 PM - 7:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Daily	134	19	7	3	172	142	23	12	3	189	132	18	10	4	164	136	20	10	4	170
AM Peak Hour*	7:00 AM - 8:00 AM															4	4	1	0	9
PM Peak Hour*	4:15 PM - 5:15 PM															24	3	0	0	27

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 6
Existing Site Trip Generation

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility	Counts								
Passenger Cars		1 Site	15	4	19	3	18	21	173
Trucks (2-Axle)		1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)		1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)		1 Site	0	0	0	1	0	1	8
Subtotal			19	9	28	9	21	30	241

Trips Generated - With On-Street Employee Parking									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility	Counts								
Passenger Cars		1 Site	20	4	24	4	24	28	272
Trucks (2-Axle)		1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)		1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)		1 Site	0	0	0	1	0	1	8
Subtotal			24	9	33	10	27	37	340

Notes:
1. Traffic counts at project driveway (see Tables 1 to 5).
2. Green Bee Facility at 18890 Seaton Ave, Perris, CA 92570.

Table 7
Project Trips Generated

Vehicle Trips Generated								
		AM Peak Hour			PM Peak Hour			
Land Use	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility								
Passenger Cars	1 Site	15	4	19	3	18	21	173
Trucks (2-Axle)	1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)	1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)	1 Site	0	0	0	1	0	1	8
Subtotal - Trucks		19	9	28	9	21	30	241
TOTAL VEHICLE TRIPS GENERATED		**19**	**9**	**28**	**9**	**21**	**30**	**241**
PCE Trips Generated[3]								
Green Bee Facility	PCE Factor							
Passenger Cars	1.0 PCE	15	4	19	3	18	21	173
Trucks (2-Axle)	1.5 PCE	4	8	12	4	6	10	80
Trucks (3-Axle)	2.0 PCE	5	3	8	8	0	8	50
Trucks (4+-Axle)	3.0 PCE	0	0	0	3	0	3	24
Subtotal - Trucks (PCE)		9	11	20	15	6	21	154
TOTAL PCE TRIPS GENERATED		**24**	**15**	**39**	**18**	**24**	**42**	**327**

Vehicle Trips Generated - With On-Street Employee Parking								
		AM Peak Hour			PM Peak Hour			
Land Use	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility								
Passenger Cars	1 Site	20	4	24	4	24	28	272
Trucks (2-Axle)	1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)	1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)	1 Site	0	0	0	1	0	1	8
Subtotal - Trucks		24	9	33	10	27	37	340
TOTAL VEHICLE TRIPS GENERATED		**24**	**9**	**33**	**10**	**27**	**37**	**340**
PCE Trips Generated[3] - With On-Street Employee Parking								
Green Bee Facility	PCE Factor							
Passenger Cars	1.0 PCE	20	4	24	4	24	28	272
Trucks (2-Axle)	1.5 PCE	4	8	12	4	6	10	80
Trucks (3-Axle)	2.0 PCE	5	3	8	8	0	8	50
Trucks (4+-Axle)	3.0 PCE	0	0	0	3	0	3	24
Subtotal - Trucks (PCE)		9	11	20	15	6	21	154
TOTAL PCE TRIPS GENERATED		**29**	**15**	**44**	**19**	**30**	**49**	**426**

Notes:
1. Traffic counts at project driveway (see Tables 1 to 5).
2. Green Bee Facility at 18890 Seaton Ave, Perris, CA 92570.
3. PCE = Passenger Car Equivalent



Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

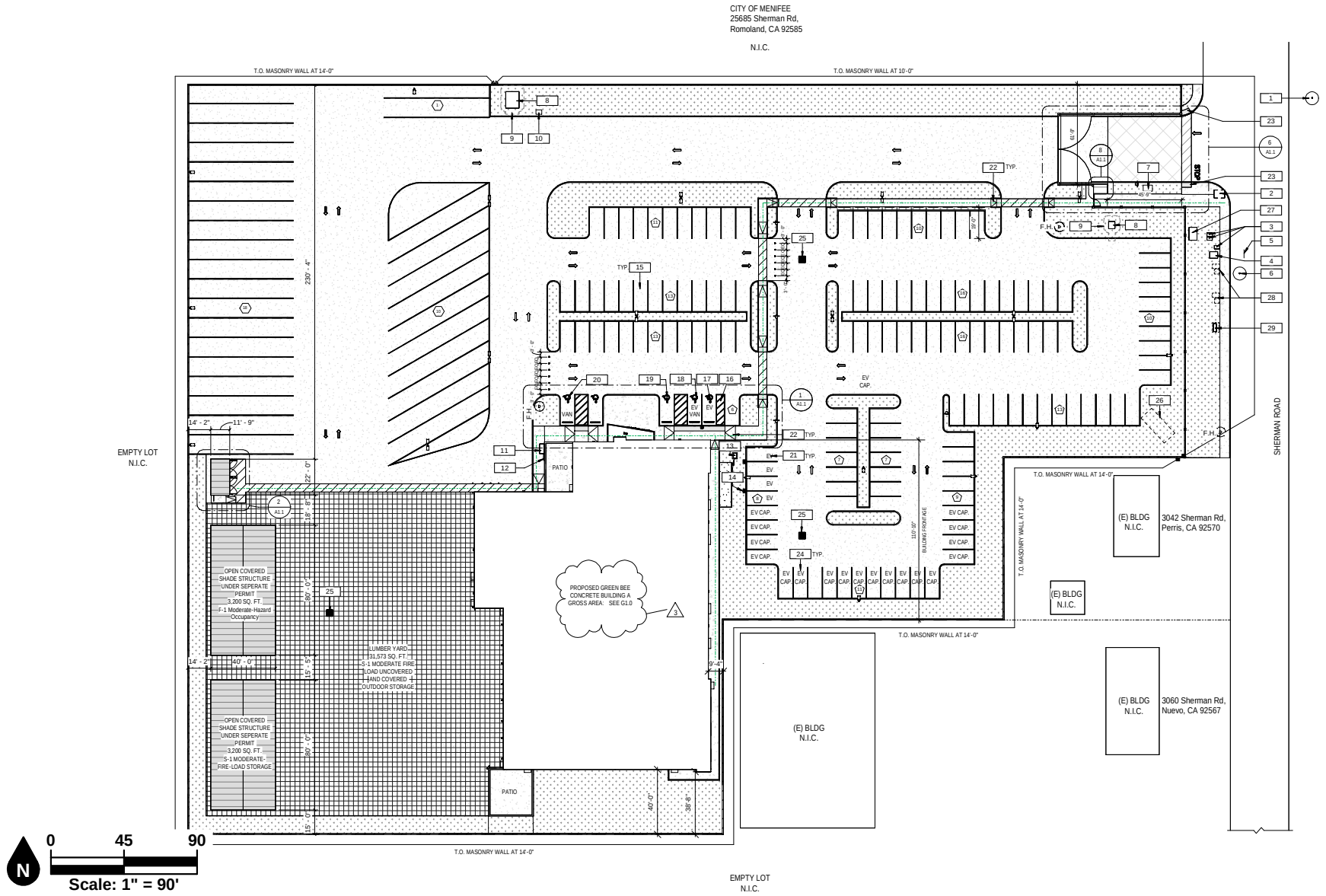


Figure 2
Site Plan

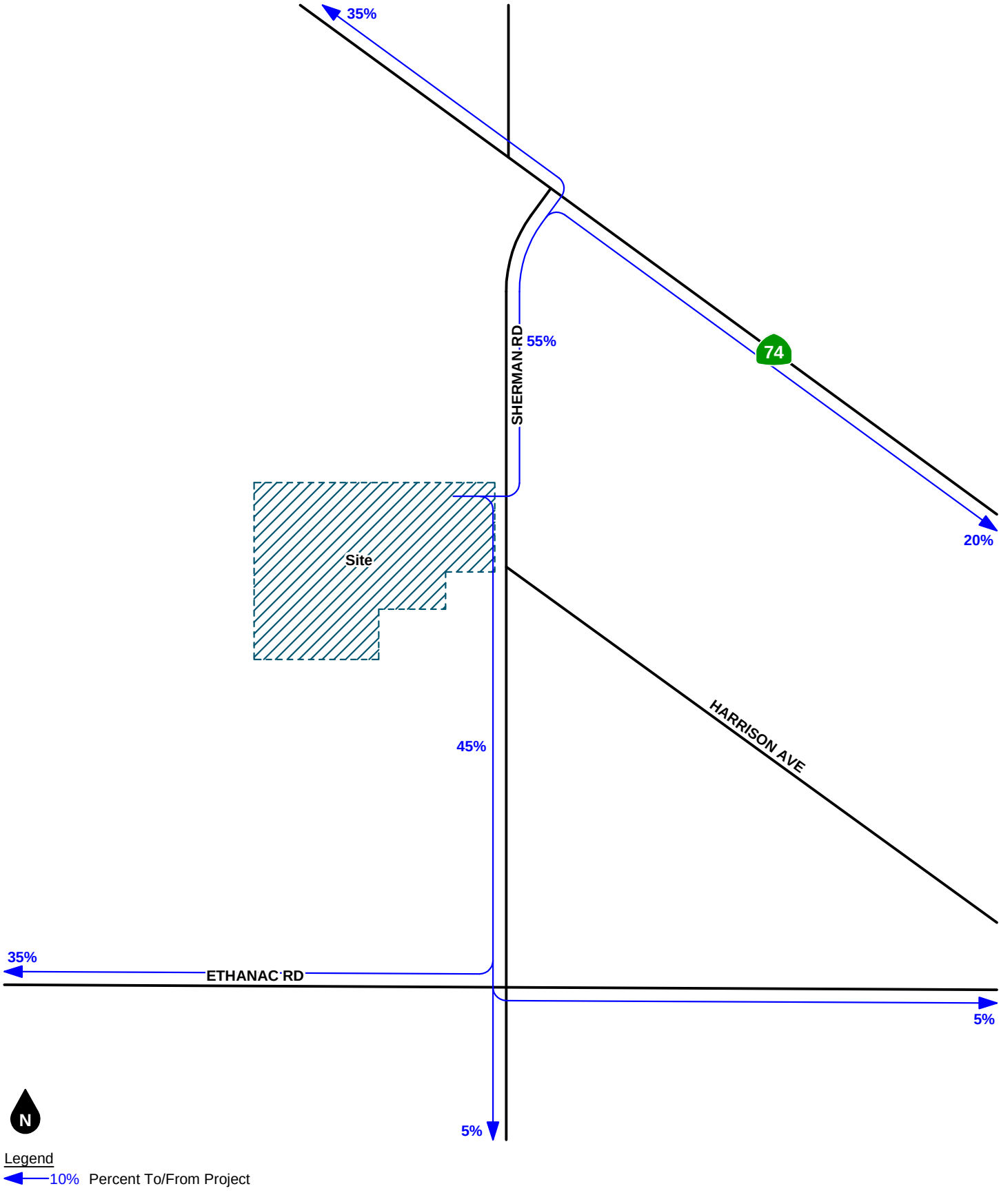


Figure 3
Project Trip Distribution - Passenger Cars

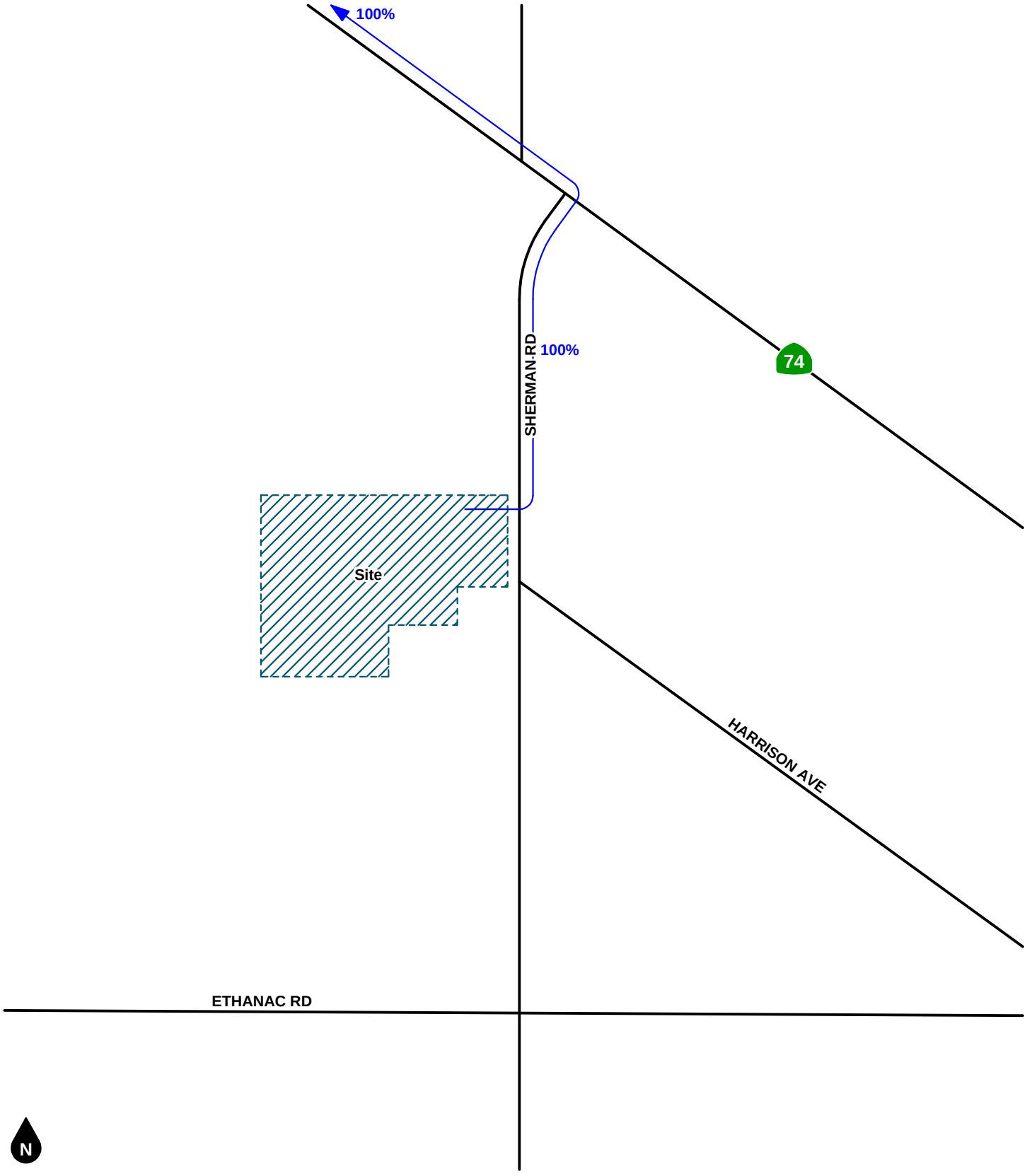


Figure 4
Project Trip Distribution - Trucks

MAY 29, 2026

Ms. Monica Carranza
CITY OF PERRIS (Planning Division)
135 North "D" Street
Perris, CA 92570

SUBJECT: GREEN BEE CONTRACTOR YARD PROJECT (PLN 24-05264) TRAFFIC SUBMITTAL REVIEW #3, CITY OF PERRIS

Dear Ms. Carranza:

INTRODUCTION

RK ENGINEERING GROUP, INC. (RK) has reviewed the Traffic Submittal #3 for the proposed Green Bee Contractor Yard Project (PLN24-05264). Included in this submittal is a revised Vehicle Miles Traveled (VMT) Screening Assessment and a Traffic Study Scoping Agreement.

The 5.4-acre project site is located at 25775 Sherman Road in the City of Perris, California (APN: 329-240- 031 and 329-240-028). The project site is currently vacant. The proposed project developing a commercial contractor yard with a 25,450 square foot building, 150 parking spaces, 29 truck parking spaces, a 43,470 square foot lumber yard with covered shade structures, and a detention basin in the Light Industrial (LI) Zone.

The current and proposed operations do not involve concrete processing/batching. The lumber yard is noncommercial and the contractor's yard will include offices. The outside yard operations stack and store Timberstrand form boards, some dimensional lumber, and stakes. Job site packages including lumber and hardware are loaded onto delivery trucks with forklifts, and lumber delivery trucks leave the yard to go out to different job sites. There are 12 job site delivery trucks that go out each day. They have 3 forklifts that load those trucks. There are 2 table saws that cut stakes and dimensional lumber. All wood waste is recycled in a 40-yard bin, with minimal saw dust. There are no generators in the yard. HVAC units will be whatever are needed for the office building. There are 6 equipment transport trucks that leave the yard in the morning and come back in the afternoon. There are 6 concrete pump trucks that also leave in the morning and come back in the evening.

The working hours are Monday through Friday from 7:00 AM to approximately 4:00 PM. There are anticipated to be 15 office employees (8:00 AM to 5:00 PM), 5 mechanics (8:00 AM to 5:00 PM), and 15-yard employees (6:00 AM to 3:00 PM).

The existing site at 18890 Seaton Avenue, Perris, California 92570 will be closed and moved to the proposed project site. Although the new proposed project site is larger, which includes additional

building square footage and on-site parking spaces, the operations are expected to remain consistent. The project applicant is not anticipating any additional growth because of maximized current market dynamics, and the purpose of the move is mostly due to limited space at their current facility to handle existing operations. The number of employees and number of customers is not anticipated to be increased when moving to the new project site. The additional on-site parking spaces will allow employees and customers to park on-site instead of on-street which is currently occurring on their existing site. Also, additional parking spaces can be used for temporary on-site storage of materials.

Thus, the project trip generation is expected to match the existing trip generation surveyed at the 18890 Seaton Avenue, Perris, California 92570 location.

The project is proposing one (1) access driveway along Sherman Road.

The Traffic Study Scoping Agreement is dated May 22, 2026, and the VMT Screening Assessment is dated May 27, 2026. Both documents were prepared by Ganddini Group.

RK has reviewed the Traffic Submittal #3 based upon City of Perris traffic engineering standards and thresholds. The revised Vehicle Miles Traveled (VMT) Screening Assessment adequately addresses RK's prior comments. Based on our review, no further comments remain at this time for this study. RK does have one remaining comment regarding the Traffic Study Scoping Agreement that need to be incorporated into the final Traffic Analysis. **A revised Traffic Study Scoping Agreement <u>is not</u> required if the below comments are agreed upon. The traffic consultant may proceed with preparation of the Traffic Impact Study and submit to the City for review once completed.**

COMMENTS

1. The Vehicle Miles Traveled (VMT) Screening Assessment, dated May 27, 2026, is acceptable as currently written. Any changes that may be necessary as a result of work completed on the traffic impact study (e.g., project trip generation, description, etc.) must be made in the VMT document as well for consistency.

2. Please include a site access analysis consistent with Section 3.7.1 of the City's TIA Guidelines. This analysis shall include, but not limited to, the following: 1) a qualitative discussion on operations, 2) general on-site circulation discussion/assessment, 3) truck turning templates for trucks entering/exiting the site & maneuvering throughout the site (including entering/exiting the most critical parking spaces), 4) a review of driveway spacing to adjacent off-site intersections/driveways (based on County of Riverside Standard Plan No. 114), and 5) a conceptual signing/striping plan along Sherman Road (showing proposed access and how it relates to proximity to adjacent intersections /driveways, specifically Harrison Avenue).

   This site access analysis shall be included as a section within the traffic study, not a standalone document.

CONCLUSIONS

RK has reviewed the Traffic Submittal #3 for the proposed Green Bee Contractor Yard Project (PLN24-05264. The revised Vehicle Miles Traveled (VMT) Screening Assessment adequately addresses RK's prior comments. Based on our review, no further comments remain at this time for this study. RK does have one remaining comment regarding the Traffic Study Scoping Agreement that need to be incorporated into the final Traffic Analysis. A revised Traffic Study Scoping Agreement is not required if the below comments are agreed upon. The traffic consultant may proceed with preparation of the Traffic Impact Study and submit to the City for review once completed.

RK Engineering Group, Inc., appreciates this opportunity to work with the City of Perris on this project. If you have any questions regarding this review or need further clarification, please contact us at (949) 474-0809.

Sincerely,

RK ENGINEERING GROUP, INC.

Justin Tucker, P.E., T.E.
Principal

Registered Civil Engineer 92866
Registered Traffic Engineer 3055

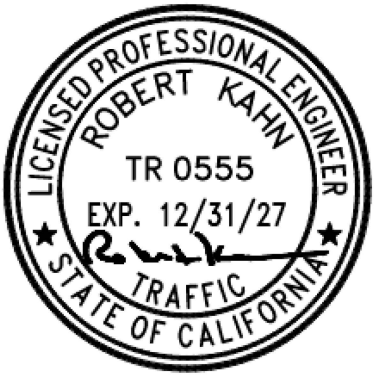
Robert Kahn, P.E., T.E.
Founding Principal

Registered Civil Engineer 20285
Registered Traffic Engineer 0555

Attachment

XC: Kenneth Phung, City of Perris
XC: John Pourkazemi, City of Perris
XC: Patricia Brenes, City of Perris
XC: Brad Brophy, City of Perris





APPENDIX C

VOLUME COUNT WORKSHEETS

INTERSECTION TURNING MOVEMENT COUNTS

T031126

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jun 3, 26

LOCATION: Perris
NORTH & SOUTH: Sherman Rd
EAST & WEST: SR-74

PROJECT #: SC6118
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

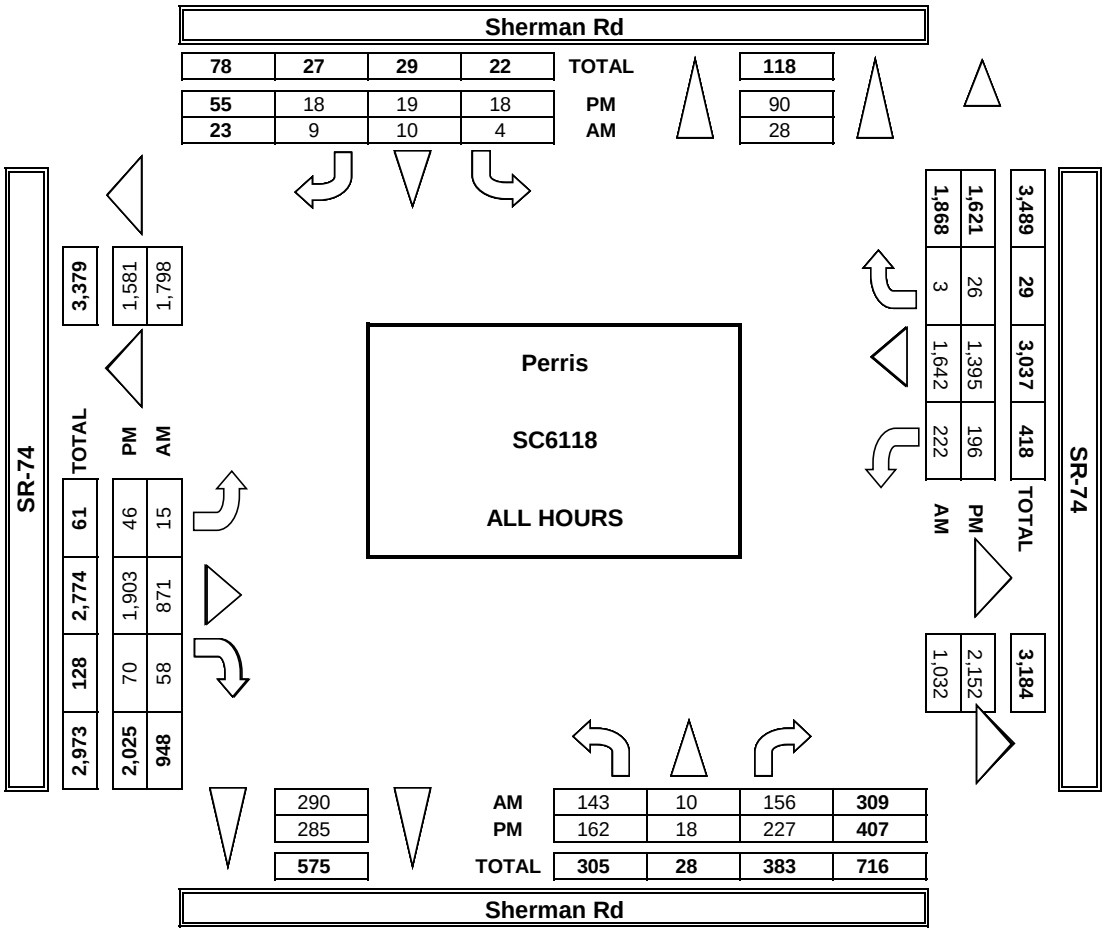
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

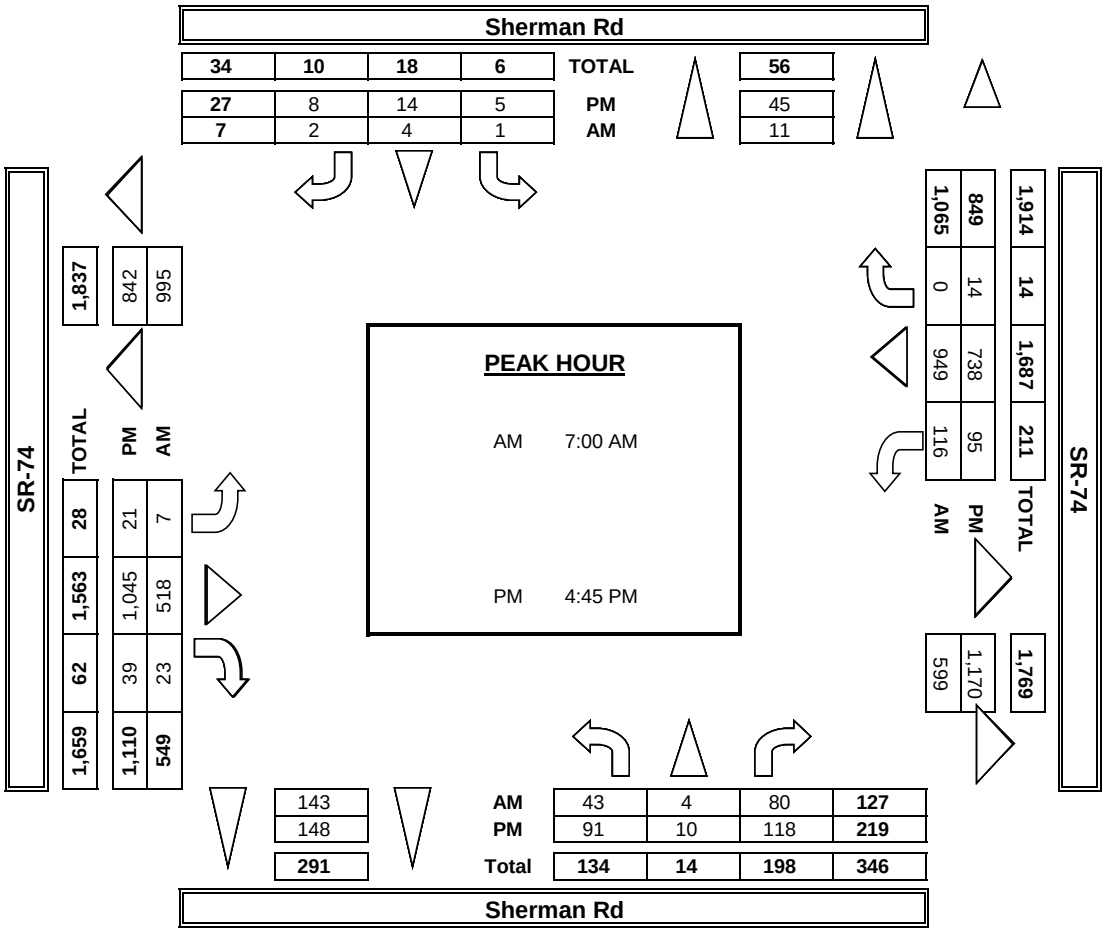
		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	9	1	21	0	0	1	1	131	8	24	255	0	451	0	0	0	0	0
	7:15 AM	11	0	17	0	0	0	4	136	5	23	241	0	437	0	0	0	0	0
	7:30 AM	11	0	26	1	4	0	0	142	5	31	241	0	461	0	0	1	0	1
	7:45 AM	12	3	16	0	0	1	2	109	5	38	212	0	398	0	0	0	0	0
	8:00 AM	24	3	23	0	2	1	3	99	3	29	176	2	365	0	0	0	0	0
	8:15 AM	24	0	18	0	2	1	3	61	25	27	156	1	318	0	0	0	0	0
	8:30 AM	27	1	19	1	0	4	1	120	3	23	183	0	382	0	0	1	0	1
	8:45 AM	25	2	16	2	2	1	1	73	4	27	178	0	331	0	0	2	1	3
	VOLUMES	143	10	156	4	10	9	15	871	58	222	1,642	3	3,148	0	0	4	1	5
	APPROACH %	46%	3%	50%	17%	43%	39%	2%	92%	6%	12%	88%	0%						
	APP/DEPART	309	/	28	23	/	290	948	/	1,032	1,868	/	1,798	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	43	4	80	1	4	2	7	518	23	116	949	0	1,748	0	0	1	0	
	APPROACH %	34%	3%	63%	14%	57%	29%	1%	94%	4%	11%	89%	0%						
	PEAK HR FACTOR		0.858			0.350			0.927			0.954		0.946					
	APP/DEPART	127	/	11	7	/	143	549	/	599	1,065	/	995	0					
PM	4:00 PM	21	1	29	2	3	4	9	197	10	34	166	1	477	0	0	1	0	1
	4:15 PM	13	4	41	2	0	2	4	212	4	23	165	2	472	0	0	0	1	1
	4:30 PM	19	0	19	5	1	3	7	210	11	19	149	6	449	0	0	0	1	1
	4:45 PM	24	3	34	1	0	1	8	226	10	22	174	3	506	0	0	2	0	2
	5:00 PM	20	1	23	2	3	4	6	297	14	25	183	2	580	0	0	1	1	2
	5:15 PM	29	2	31	1	8	1	5	243	6	29	211	3	569	0	0	1	1	2
	5:30 PM	18	4	30	1	3	2	2	279	9	19	170	6	543	0	0	1	0	1
	5:45 PM	18	3	20	4	1	1	5	239	6	25	177	3	502	0	0	0	0	0
	VOLUMES	162	18	227	18	19	18	46	1,903	70	196	1,395	26	4,108	0	0	6	4	10
	APPROACH %	40%	4%	56%	33%	35%	33%	2%	94%	3%	12%	86%	2%						
	APP/DEPART	407	/	90	55	/	285	2,025	/	2,152	1,621	/	1,581	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	91	10	118	5	14	8	21	1,045	39	95	738	14	2,205	0	0	5	2	
	APPROACH %	42%	5%	54%	19%	52%	30%	2%	94%	4%	11%	87%	2%						
	PEAK HR FACTOR		0.883			0.675			0.873			0.870		0.947					
	APP/DEPART	219	/	45	27	/	148	1,110	/	1,170	849	/	842	0					



AimTD LLC

TURNING MOVEMENT COUNTS





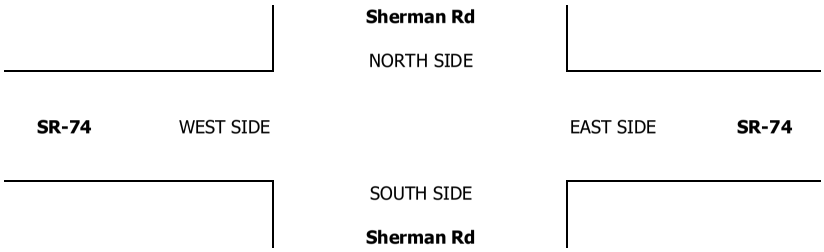
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

	NOTES:											
PCE	Class	1	2	3	4	5	6			AM		▲ N
Adjusted	Factor	1	1.5	2	3	3	3			PM		
										MD	◄ W	E ►
										OTHER		S
										OTHER		▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74			
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	10	1	24	0	0	2	2	174	11	27	285	0	533
7:15 AM	11	0	18	0	0	0	4	173	6	27	264	0	502
7:30 AM	12	0	27	1	4	0	0	184	7	34	263	0	530
7:45 AM	14	3	18	0	0	1	2	132	7	43	236	0	455
8:00 AM	29	5	24	0	2	1	4	129	3	32	200	3	430
8:15 AM	26	0	20	0	4	2	3	90	28	29	188	1	389
8:30 AM	35	1	22	1	0	5	3	158	5	28	224	0	480
8:45 AM	27	2	19	2	2	1	2	99	8	30	200	0	390
VOLUMES	163	12	169	4	12	11	19	1,136	75	248	1,858	4	3,708
APPROACH %	47%	3%	49%	15%	45%	40%	2%	92%	6%	12%	88%	0%	
APP/DEPART	344	/	34	27	/	335	1,229	/	1,309	2,109	/	2,031	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	46	4	86	1	4	3	8	662	31	130	1,047	0	2,020
APPROACH %	34%	3%	63%	13%	53%	33%	1%	95%	4%	11%	89%	0%	
PEAK HR FACTOR		0.891			0.375			0.919			0.946		0.947
APP/DEPART	136	/	12	8	/	165	700	/	748	1,177	/	1,095	0
4:00 PM	22	1	29	2	3	4	10	213	11	35	189	1	518
4:15 PM	14	4	42	2	0	5	4	226	4	27	202	2	531
4:30 PM	22	0	22	6	1	3	8	233	13	19	160	6	491
4:45 PM	25	4	34	1	0	1	8	245	11	22	203	3	556
5:00 PM	20	1	24	3	3	4	6	319	16	25	209	2	631
5:15 PM	31	2	33	1	9	1	5	258	6	30	231	3	608
5:30 PM	21	4	31	1	4	2	2	295	11	21	194	8	593
5:45 PM	19	5	26	4	1	1	5	250	6	26	200	3	545
VOLUMES	173	21	239	19	21	21	47	2,038	77	204	1,586	28	4,472
APPROACH %	40%	5%	55%	31%	34%	35%	2%	94%	4%	11%	87%	2%	
APP/DEPART	432	/	96	61	/	302	2,162	/	2,296	1,818	/	1,779	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	97	11	121	6	16	8	21	1,116	44	97	837	16	2,387
APPROACH %	42%	5%	53%	19%	53%	28%	2%	95%	4%	10%	88%	2%	
PEAK HR FACTOR		0.870			0.659			0.867			0.903		0.946
APP/DEPART	228	/	48	29	/	156	1,181	/	1,243	950	/	941	0



INTERSECTION TURNING MOVEMENT COUNTS

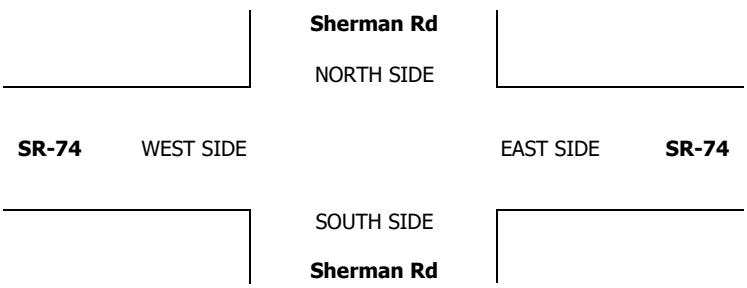
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	8	1	19	0	0	0	0	96	5	22	229	0	380	0	0	0	0	0
7:15 AM	11	0	15	0	0	0	4	106	3	19	223	0	381	0	0	0	0	0
7:30 AM	10	0	25	1	4	0	0	103	4	28	219	0	394	0	0	1	0	1
7:45 AM	11	3	14	0	0	1	2	86	4	34	190	0	345	0	0	0	0	0
8:00 AM	20	2	22	0	2	1	2	77	3	26	157	1	313	0	0	0	0	0
8:15 AM	21	0	15	0	1	0	3	41	23	25	127	1	257	0	0	0	0	0
8:30 AM	22	1	17	1	0	3	0	90	2	20	156	0	312	0	0	1	0	1
8:45 AM	23	2	14	2	2	1	0	54	2	24	156	0	280	0	0	2	1	3
VOLUMES	126	9	141	4	9	6	11	653	46	198	1,457	2	2,667	0	0	4	1	5
APPROACH %	46%	3%	51%	21%	47%	32%	2%	91%	6%	12%	88%	0%						
APP/DEPART	276	/	22	19	/	253	714	/	799	1,658	/	1,593	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	40	4	73	1	4	1	6	391	16	103	861	0	1,501	0	0	1	0	
APPROACH %	34%	3%	62%	17%	67%	17%	1%	94%	4%	11%	89%	0%						
PEAK HR FACTOR		0.836			0.300			0.916			0.960		0.950					
APP/DEPART	117	/	10	6	/	123	414	/	465	964	/	903	0					
PM																		
4:00 PM	19	1	29	2	3	4	8	179	9	32	147	1	434	0	0	1	0	1
4:15 PM	12	4	40	2	0	0	4	199	4	19	134	2	420	0	0	0	1	1
4:30 PM	16	0	17	4	1	3	6	190	10	19	140	6	412	0	0	0	1	1
4:45 PM	23	2	34	1	0	1	8	206	9	22	148	3	457	0	0	2	0	2
5:00 PM	20	1	22	1	3	4	6	273	13	25	158	2	528	0	0	1	1	2
5:15 PM	25	2	28	1	7	1	5	230	6	28	192	3	528	0	0	1	1	2
5:30 PM	15	4	28	1	2	2	2	263	8	17	152	5	499	0	0	1	0	1
5:45 PM	17	2	14	4	1	1	5	225	6	24	160	3	462	0	0	0	0	0
VOLUMES	147	16	212	16	17	16	44	1,765	65	186	1,231	25	3,750	0	0	6	4	10
APPROACH %	39%	4%	57%	33%	35%	33%	2%	94%	3%	13%	85%	2%						
APP/DEPART	375	/	85	49	/	268	1,880	/	1,997	1,446	/	1,400	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	83	9	112	4	12	8	21	972	36	92	650	13	2,019	0	0	5	2	
APPROACH %	41%	4%	55%	17%	50%	33%	2%	94%	3%	12%	86%	2%						
PEAK HR FACTOR		0.864			0.667			0.882			0.845		0.952					
APP/DEPART	204	/	43	24	/	140	1,034	/	1,090	757	/	746	0					



INTERSECTION TURNING MOVEMENT COUNTS

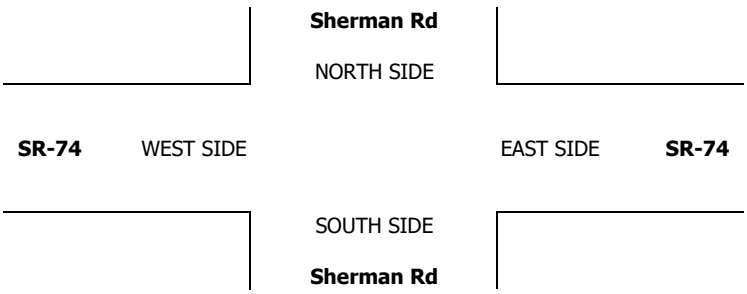
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	1	0	1	0	0	1	1	14	2	1	13	0	34	0	0	0	0	0
	7:15 AM	0	0	2	0	0	0	0	13	2	3	7	0	27	0	0	0	0	0
	7:30 AM	1	0	1	0	0	0	0	19	0	2	11	0	34	0	0	0	0	0
	7:45 AM	0	0	1	0	0	0	0	13	0	2	10	0	26	0	0	0	0	0
	8:00 AM	2	0	1	0	0	0	1	9	0	2	9	1	25	0	0	0	0	0
	8:15 AM	2	0	2	0	0	1	0	7	1	1	12	0	26	0	0	0	0	0
	8:30 AM	0	0	1	0	0	1	0	11	0	1	9	0	23	0	0	0	0	0
	8:45 AM	1	0	1	0	0	0	1	7	0	2	12	0	24	0	0	0	0	0
	VOLUMES	7	0	10	0	0	3	3	93	5	14	83	1	219	0	0	0	0	0
	APPROACH %	41%	0%	59%	0%	0%	100%	3%	92%	5%	14%	85%	1%						
	APP/DEPART	17	/	4	3	/	19	101	/	103	98	/	93	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	2	0	5	0	0	1	1	59	4	8	41	0	121	0	0	0	0	
	APPROACH %	29%	0%	71%	0%	0%	100%	2%	92%	6%	16%	84%	0%						
	PEAK HR FACTOR		0.875			0.250			0.842			0.875		0.890					
	APP/DEPART	7	/	1	1	/	12	64	/	64	49	/	44	0					
PM	4:00 PM	2	0	0	0	0	0	1	13	1	2	7	0	26	0	0	0	0	0
	4:15 PM	1	0	1	0	0	0	0	8	0	2	9	0	21	0	0	0	0	0
	4:30 PM	2	0	1	1	0	0	1	10	0	0	3	0	18	0	0	0	0	0
	4:45 PM	1	1	0	0	0	0	0	12	1	0	14	0	29	0	0	0	0	0
	5:00 PM	0	0	1	1	0	0	0	17	0	0	10	0	29	0	0	0	0	0
	5:15 PM	4	0	3	0	0	0	0	7	0	1	9	0	24	0	0	0	0	0
	5:30 PM	2	0	2	0	1	0	0	10	0	1	6	0	22	0	0	0	0	0
	5:45 PM	1	0	4	0	0	0	0	10	0	0	5	0	20	0	0	0	0	0
	VOLUMES	13	1	12	2	1	0	2	87	2	6	63	0	189	0	0	0	0	0
	APPROACH %	50%	4%	46%	67%	33%	0%	2%	96%	2%	9%	91%	0%						
	APP/DEPART	26	/	3	3	/	9	91	/	101	69	/	76	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	7	1	6	1	1	0	0	46	1	2	39	0	104	0	0	0	0	
	APPROACH %	50%	7%	43%	50%	50%	0%	0%	98%	2%	5%	95%	0%						
	PEAK HR FACTOR		0.500			0.500			0.691			0.732		0.897					
	APP/DEPART	14	/	1	2	/	4	47	/	53	41	/	46	0					



INTERSECTION TURNING MOVEMENT COUNTS

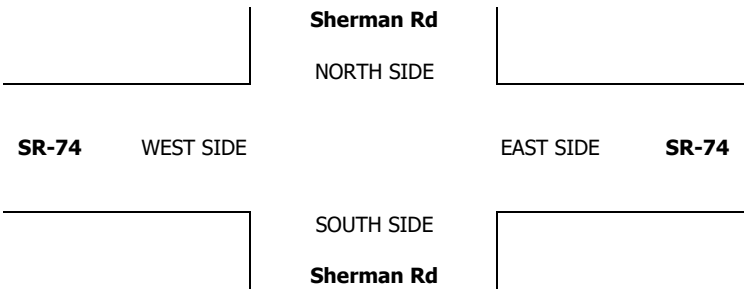
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 3:	NOTES:
3-AXLE TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	6	0	0	3	0	9	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	4	0	0	3	0	7	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	8	0	0	6	0	14	0	0	0	0	0
	7:45 AM	0	0	1	0	0	0	0	4	0	0	5	0	10	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	8:15 AM	1	0	1	0	0	0	0	1	0	1	8	0	12	0	0	0	0	0
	8:30 AM	2	0	0	0	0	0	0	6	0	0	0	0	8	0	0	0	0	0
	8:45 AM	1	0	0	0	0	0	0	2	0	0	4	0	7	0	0	0	0	0
	VOLUMES	4	0	2	0	0	0	0	32	0	1	30	0	69	0	0	0	0	0
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	100%	0%	3%	97%	0%						
	APP/DEPART	6	/	0	0	/	1	32	/	34	31	/	34	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	0	1	0	0	0	0	22	0	0	17	0	40	0	0	0	0	
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.000			0.688			0.708		0.714					
	APP/DEPART	1	/	0	0	/	0	22	/	23	17	/	17	0					
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	5	0	6	0	0	0	0	0
	4:15 PM	0	0	0	0	0	1	0	0	0	1	12	0	14	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	2	0	0	3	0	5	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	9	0	10	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	1	0	0	5	0	7	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	1	3	0	5	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	2	0	1	4	0	7	0	0	0	0	0
	VOLUMES	0	0	0	0	1	1	0	11	0	3	43	0	59	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	50%	50%	0%	100%	0%	7%	93%	0%						
	APP/DEPART	0	/	0	2	/	4	11	/	11	46	/	44	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	1	0	0	6	0	1	19	0	27	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	5%	95%	0%						
	PEAK HR FACTOR		0.000			0.250			0.500			0.556		0.675					
	APP/DEPART	0	/	0	1	/	2	6	/	6	20	/	19	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

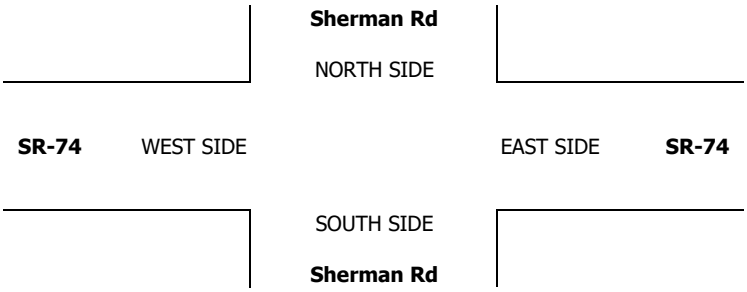
CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	1	0	0	0	0	13	0	0	9	0	23	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	12	0	1	6	0	19	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	12	1	1	3	0	17	0	0	0	0	0
	7:45 AM	1	0	0	0	0	0	0	6	0	1	7	0	15	0	0	0	0	0
	8:00 AM	2	1	0	0	0	0	0	10	0	1	7	0	21	0	0	0	0	0
	8:15 AM	0	0	0	0	1	0	0	8	0	0	9	0	18	0	0	0	0	0
	8:30 AM	3	0	1	0	0	0	1	11	1	2	17	0	36	0	0	0	0	0
	8:45 AM	0	0	1	0	0	0	0	7	1	1	4	0	14	0	0	0	0	0
	VOLUMES	6	1	3	0	1	0	1	79	3	7	62	0	163	0	0	0	0	0
	APPROACH %	60%	10%	30%	0%	100%	0%	1%	95%	4%	10%	90%	0%						
	APP/DEPART	10	/	2	1	/	11	83	/	82	69	/	68	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	1	0	1	0	0	0	0	43	1	3	25	0	74	0	0	0	0	
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	98%	2%	11%	89%	0%						
	PEAK HR FACTOR		0.500			0.000			0.846			0.778		0.804					
	APP/DEPART	2	/	0	0	/	4	44	/	44	28	/	26	0					
PM	4:00 PM	0	0	0	0	0	0	0	4	0	0	5	0	9	0	0	0	0	0
	4:15 PM	0	0	0	0	0	1	0	3	0	1	9	0	14	0	0	0	0	0
	4:30 PM	1	0	1	0	0	0	0	8	0	0	3	0	13	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	4	0	0	9	0	13	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	5	0	0	6	0	11	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	5	0	0	4	0	9	0	0	0	0	0
	5:30 PM	1	0	0	0	0	0	0	5	0	0	7	1	14	0	0	0	0	0
	5:45 PM	0	1	2	0	0	0	0	2	0	0	4	0	9	0	0	0	0	0
	VOLUMES	2	1	3	0	0	1	0	36	0	1	47	1	92	0	0	0	0	0
	APPROACH %	33%	17%	50%	0%	0%	100%	0%	100%	0%	2%	96%	2%						
	APP/DEPART	6	/	2	1	/	1	36	/	39	49	/	50	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	1	0	0	0	0	0	0	19	0	0	26	1	47	0	0	0	0	
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	96%	4%						
	PEAK HR FACTOR		0.250			0.000			0.950			0.750		0.839					
	APP/DEPART	1	/	1	0	/	0	19	/	19	27	/	27	0					



INTERSECTION TURNING MOVEMENT COUNTS

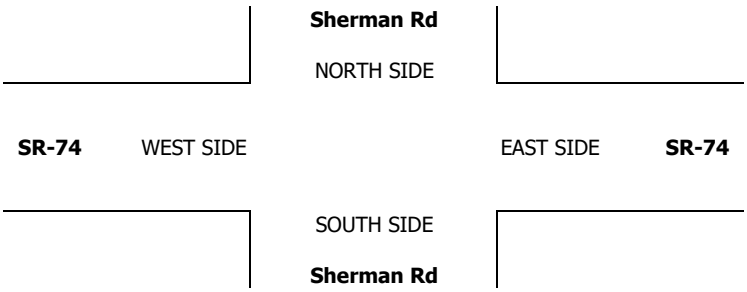
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM																		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

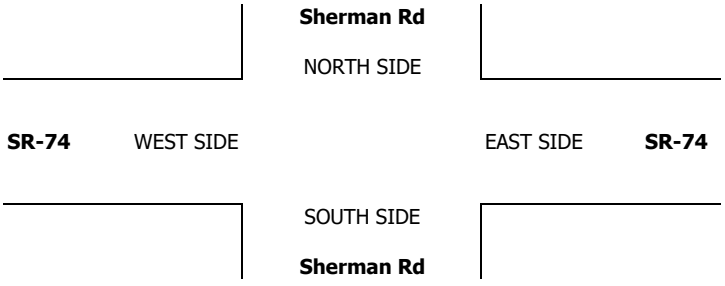
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	3
WEDNESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND SR-74			WESTBOUND SR-74				U-TURNS				
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	0	2	1	1	1	0	5	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	4	1	0	0	0	5	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	3	1	0	2	0	6	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	14	4	2	10	0	30	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	78%	22%	17%	83%	0%						
APP/DEPART	0	/	0	0	/	6	18	/	14	12	/	10	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	0	0	0	0	0	0	0	3	2	2	5	0	12	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	60%	40%	29%	71%	0%						
PEAK HR FACTOR		0.000			0.000			0.417			0.875		0.600					
APP/DEPART	0	/	0	0	/	4	5	/	3	7	/	5	0					
PM																		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	4	3	0	11	0	18	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	57%	43%	0%	100%	0%						
APP/DEPART	0	/	0	0	/	3	7	/	4	11	/	11	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	0	0	0	0	0	2	2	0	4	0	8	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.500			0.500		0.667					
APP/DEPART	0	/	0	0	/	2	4	/	2	4	/	4	0					



INTERSECTION TURNING MOVEMENT COUNTS

T031126

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
Wed, Jun 3, 26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	23	0	0	25	0	0	0	0	0	0	3	51	0	0	0	0	0
	7:15 AM	0	18	0	1	25	0	0	0	0	1	0	3	48	0	0	0	0	0
	7:30 AM	0	26	0	0	34	0	0	0	0	1	0	2	63	0	0	0	0	0
	7:45 AM	0	18	0	2	32	0	0	0	0	1	0	3	56	0	0	0	0	0
	8:00 AM	0	33	1	4	26	0	0	0	0	0	0	1	65	0	0	0	0	0
	8:15 AM	0	36	0	1	40	0	0	0	0	0	0	2	79	0	0	0	0	0
	8:30 AM	0	34	0	1	31	0	0	0	0	0	0	2	68	0	0	0	0	0
	8:45 AM	0	37	2	0	26	0	0	0	0	1	0	1	67	0	0	0	0	0
	VOLUMES	0	225	3	9	239	0	0	0	0	4	0	17	497	0	0	0	0	0
	APPROACH %	0%	99%	1%	4%	96%	0%	0%	0%	0%	19%	0%	81%						
	APP/DEPART	228	/	242	248	/	243	0	/	12	21	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	140	3	6	123	0	0	0	0	1	0	6	279	0	0	0	0	
	APPROACH %	0%	98%	2%	5%	95%	0%	0%	0%	0%	14%	0%	86%						
	PEAK HR FACTOR		0.917			0.787			0.000			0.875		0.883					
	APP/DEPART	143	/	146	129	/	124	0	/	9	7	/	0	0					
PM	4:00 PM	0	40	4	3	35	0	0	0	0	2	0	4	88	0	0	0	0	0
	4:15 PM	0	55	0	2	26	0	0	0	0	1	0	1	85	0	0	0	0	0
	4:30 PM	0	37	2	4	24	0	0	0	0	0	0	2	69	0	0	0	0	0
	4:45 PM	0	49	2	1	25	0	0	0	0	0	0	1	78	0	0	0	0	0
	5:00 PM	0	39	1	4	33	0	0	0	0	0	0	1	78	0	0	0	0	0
	5:15 PM	0	53	1	2	33	0	0	0	0	3	0	2	94	0	0	0	0	0
	5:30 PM	0	40	0	3	25	0	0	0	0	1	0	1	70	0	0	0	0	0
	5:45 PM	0	38	4	1	27	0	0	0	0	0	0	2	72	0	0	0	0	0
	VOLUMES	0	351	14	20	228	0	0	0	0	7	0	14	634	0	0	0	0	0
	APPROACH %	0%	96%	4%	8%	92%	0%	0%	0%	0%	33%	0%	67%						
	APP/DEPART	365	/	365	248	/	235	0	/	34	21	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	181	4	10	116	0	0	0	0	4	0	5	320	0	0	0	0	
	APPROACH %	0%	98%	2%	8%	92%	0%	0%	0%	0%	44%	0%	56%						
	PEAK HR FACTOR		0.841			0.829			0.000			0.375		0.851					
	APP/DEPART	185	/	186	126	/	120	0	/	14	9	/	0	0					

Sherman Rd

NORTH LEG

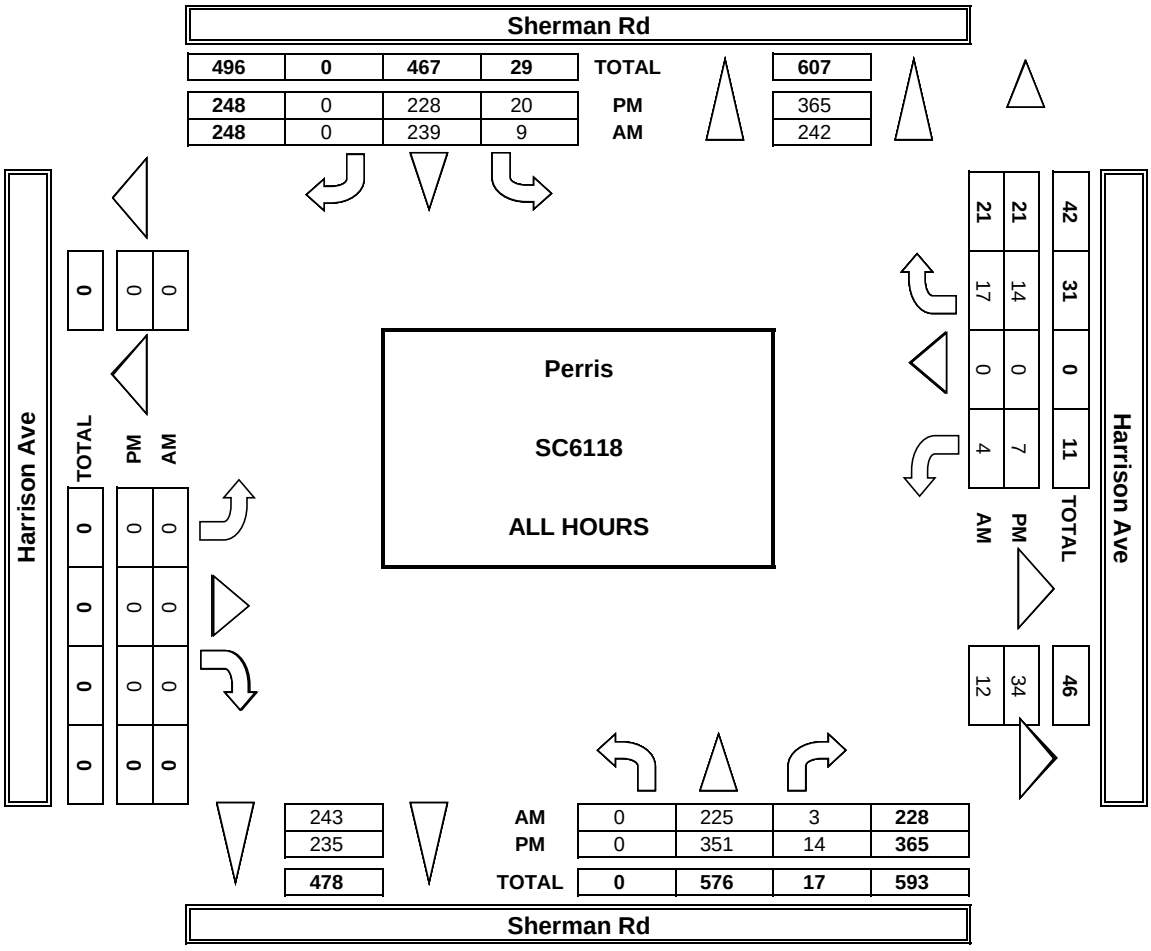
Harrison Ave WEST LEG EAST LEG **Harrison Ave**

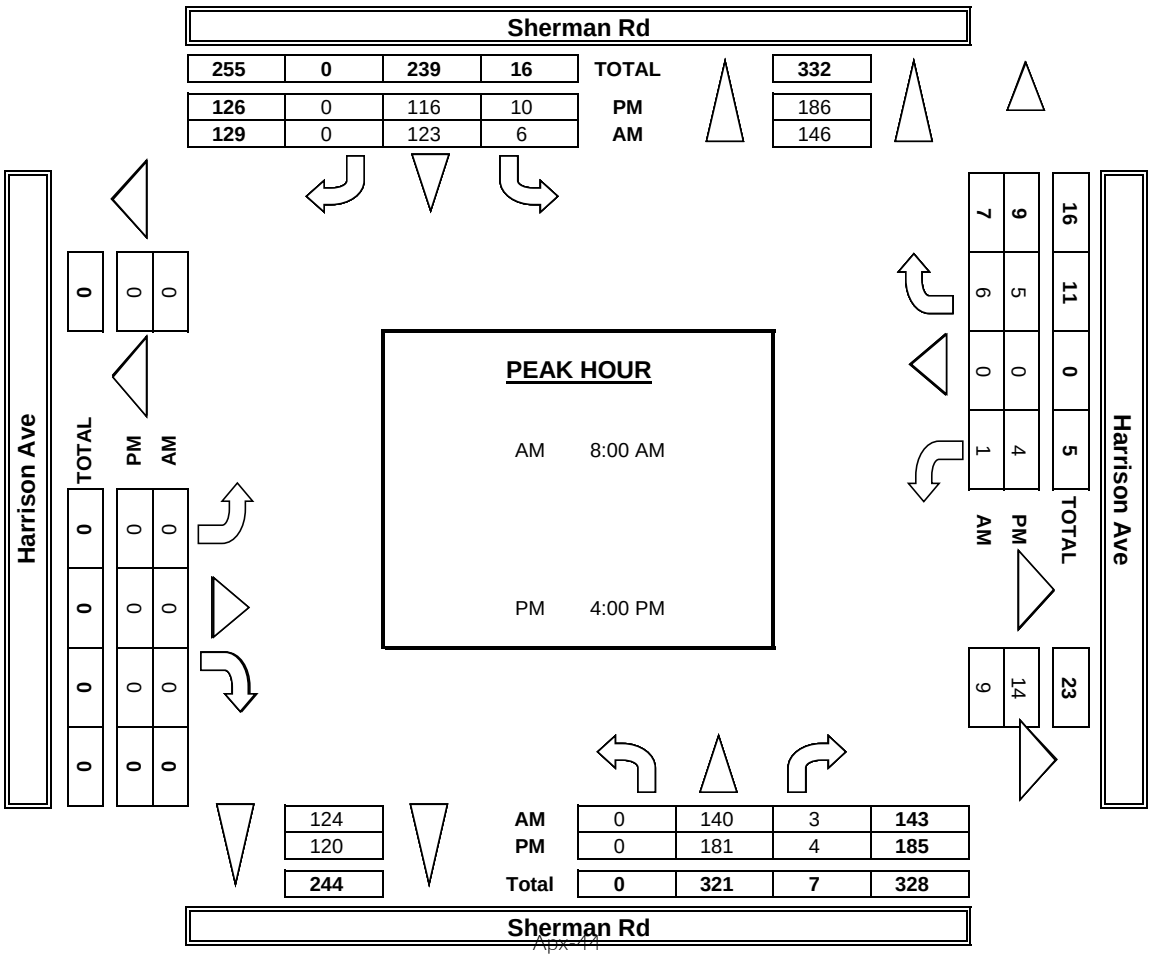
SOUTH LEG

Sherman Rd

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER	▲ N ◄ W E ► S ▼	
	Factor	1	1.5	2	3	3	3					

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave			
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
AM	7:00 AM	0	26	0	0	29	0	0	0	0	0	0	3	58
	7:15 AM	0	19	0	1	28	0	0	0	0	1	0	3	52
	7:30 AM	0	27	0	0	39	0	0	0	0	1	0	2	68
	7:45 AM	0	21	0	2	37	0	0	0	0	1	0	4	64
	8:00 AM	0	34	1	4	29	0	0	0	0	0	0	1	69
	8:15 AM	0	40	0	1	41	0	0	0	0	0	0	2	83
	8:30 AM	0	37	0	1	36	0	0	0	0	0	0	2	76
	8:45 AM	0	40	2	0	27	0	0	0	0	3	0	2	74
	VOLUMES	0	242	3	9	264	0	0	0	0	6	0	19	543
	APPROACH %	0%	99%	1%	3%	97%	0%	0%	0%	0%	24%	0%	76%	
	APP/DEPART	245	/	261	273	/	270	0	/	12	25	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	151	3	6	133	0	0	0	0	3	0	7	302
	APPROACH %	0%	98%	2%	4%	96%	0%	0%	0%	0%	30%	0%	70%	
	PEAK HR FACTOR		0.914			0.834			0.000			0.500		0.910
	APP/DEPART	154	/	158	139	/	136	0	/	9	10	/	0	0
PM	4:00 PM	0	41	5	3	36	0	0	0	0	2	0	4	90
	4:15 PM	0	60	0	3	29	0	0	0	0	1	0	1	93
	4:30 PM	0	42	2	4	25	0	0	0	0	0	0	2	75
	4:45 PM	0	49	3	1	25	0	0	0	0	0	0	1	79
	5:00 PM	0	40	1	4	33	0	0	0	0	0	0	1	79
	5:15 PM	0	58	1	2	35	0	0	0	0	3	0	2	100
	5:30 PM	0	41	0	3	27	0	0	0	0	1	0	1	72
	5:45 PM	0	46	4	1	28	0	0	0	0	0	0	2	81
	VOLUMES	0	375	16	21	236	0	0	0	0	7	0	14	668
	APPROACH %	0%	96%	4%	8%	92%	0%	0%	0%	0%	33%	0%	67%	
	APP/DEPART	391	/	389	257	/	243	0	/	37	21	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	191	10	11	114	0	0	0	0	3	0	8	336
	APPROACH %	0%	95%	5%	9%	91%	0%	0%	0%	0%	27%	0%	73%	
	PEAK HR FACTOR		0.842			0.808			0.000			0.458		0.903
	APP/DEPART	201	/	199	125	/	117	0	/	21	11	/	0	0

Sherman Rd

NORTH SIDE

Harrison Ave WEST SIDE EAST SIDE **Harrison Ave**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

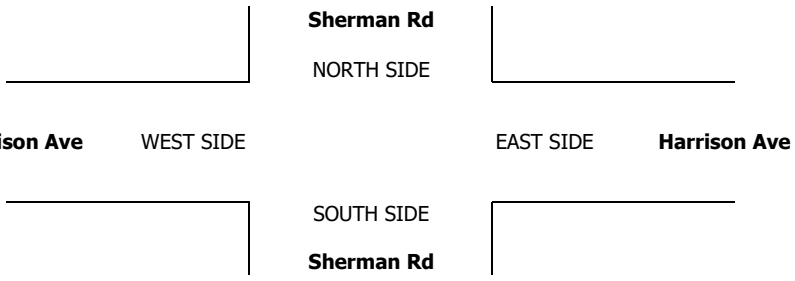
DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	20	0	0	21	0	0	0	0	0	0	3	44	0	0	0	0	0
	7:15 AM	0	17	0	1	22	0	0	0	0	1	0	3	44	0	0	0	0	0
	7:30 AM	0	25	0	0	31	0	0	0	0	1	0	2	59	0	0	0	0	0
	7:45 AM	0	16	0	2	29	0	0	0	0	1	0	2	50	0	0	0	0	0
	8:00 AM	0	31	1	4	23	0	0	0	0	0	0	1	60	0	0	0	0	0
	8:15 AM	0	30	0	1	39	0	0	0	0	0	0	2	72	0	0	0	0	0
	8:30 AM	0	32	0	1	27	0	0	0	0	0	0	2	62	0	0	0	0	0
	8:45 AM	0	34	2	0	24	0	0	0	0	0	0	0	60	0	0	0	0	0
	VOLUMES	0	205	3	9	216	0	0	0	0	3	0	15	451	0	0	0	0	0
	APPROACH %	0%	99%	1%	4%	96%	0%	0%	0%	0%	17%	0%	83%						
	APP/DEPART	208	/	220	225	/	219	0	/	12	18	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	127	3	6	113	0	0	0	0	0	0	5	254	0	0	0	0	
	APPROACH %	0%	98%	2%	5%	95%	0%	0%	0%	0%	0%	0%	100%						
	PEAK HR FACTOR		0.903			0.744			0.000			0.625		0.882					
	APP/DEPART	130	/	132	119	/	113	0	/	9	5	/	0	0					
PM	4:00 PM	0	39	3	3	34	0	0	0	0	2	0	4	85	0	0	0	0	0
	4:15 PM	0	52	0	1	24	0	0	0	0	1	0	1	79	0	0	0	0	0
	4:30 PM	0	33	2	4	23	0	0	0	0	0	0	2	64	0	0	0	0	0
	4:45 PM	0	49	1	1	25	0	0	0	0	0	0	1	77	0	0	0	0	0
	5:00 PM	0	37	1	4	33	0	0	0	0	0	0	1	76	0	0	0	0	0
	5:15 PM	0	47	1	2	31	0	0	0	0	3	0	2	86	0	0	0	0	0
	5:30 PM	0	39	0	3	23	0	0	0	0	1	0	1	67	0	0	0	0	0
	5:45 PM	0	31	4	1	26	0	0	0	0	0	0	2	64	0	0	0	0	0
	VOLUMES	0	327	12	19	219	0	0	0	0	7	0	14	598	0	0	0	0	0
	APPROACH %	0%	96%	4%	8%	92%	0%	0%	0%	0%	33%	0%	67%						
	APP/DEPART	339	/	341	238	/	226	0	/	31	21	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	173	6	9	106	0	0	0	0	3	0	8	305	0	0	0	0	
	APPROACH %	0%	97%	3%	8%	92%	0%	0%	0%	0%	27%	0%	73%						
	PEAK HR FACTOR		0.861			0.777			0.000			0.458		0.897					
	APP/DEPART	179	/	181	115	/	109	0	/	15	11	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

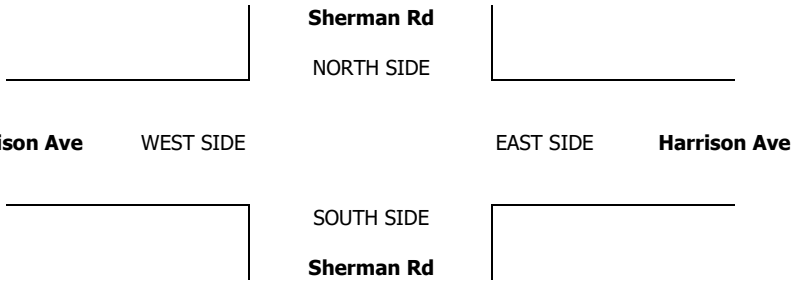
DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	2	0	0	3	0	0	0	0	0	0	0	5	0	0	0	0	0
	7:15 AM	0	1	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0
	8:15 AM	0	5	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0
	8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0
	VOLUMES	0	14	0	0	14	0	0	0	0	0	0	0	28	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	14	/	14	14	/	14	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	9	0	0	7	0	0	0	0	0	0	0	16	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.450			0.875			0.000			0.000		0.667					
	APP/DEPART	9	/	9	7	/	7	0	/	0	0	/	0	0					
PM	4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	2	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	5:15 PM	0	5	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
	VOLUMES	0	16	1	0	5	0	0	0	0	0	0	0	22	0	0	0	0	0
	APPROACH %	0%	94%	6%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	17	/	16	5	/	5	0	/	1	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	4	1	0	3	0	0	0	0	0	0	0	8	0	0	0	0	
	APPROACH %	0%	80%	20%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.625			0.750			0.000			0.000		0.667					
	APP/DEPART	5	/	4	3	/	3	0	/	1	0	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	VOLUMES	0	2	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%						
	APP/DEPART	2	/	4	0	/	0	0	/	0	2	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	2	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%						
	PEAK HR FACTOR		0.500			0.000			0.000			0.250		0.750					
	APP/DEPART	2	/	3	0	/	0	0	/	0	1	/	0	0					
PM	4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	1	1	3	0	0	0	0	0	0	0	5	0	0	0	0	0
	APPROACH %	0%	0%	100%	25%	75%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	1	/	0	4	/	3	0	/	2	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500					
	APP/DEPART	1	/	0	1	/	0	0	/	2	0	/	0	0					

Sherman Rd

NORTH SIDE

Harrison Ave WEST SIDE EAST SIDE **Harrison Ave**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0
	VOLUMES	0	4	0	0	7	0	0	0	0	1	0	0	12	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%						
	APP/DEPART	4	/	4	7	/	8	0	/	0	1	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	2	0	0	3	0	0	0	0	1	0	0	6	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%						
	PEAK HR FACTOR		0.500			0.375			0.000			0.250		0.500					
	APP/DEPART	2	/	2	3	/	4	0	/	0	1	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	VOLUMES	0	7	0	0	1	0	0	0	0	0	0	0	8	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	7	/	7	1	/	1	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	3	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.375			0.250			0.000			0.000		0.500					
	APP/DEPART	3	/	3	1	/	1	0	/	0	0	/	0	0					

Sherman Rd

NORTH SIDE

Harrison Ave WEST SIDE EAST SIDE **Harrison Ave**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Sherman Rd

NORTH SIDE

Harrison Ave WEST SIDE EAST SIDE **Harrison Ave**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Harrison Ave	CONTROL:	STOP W

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Harrison Ave			WESTBOUND Harrison Ave				U-TURNS				
LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	0	2	/	2	0	/	0	0	/	0	0					
BEGIN PEAK HR		8:00 AM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM																		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250					
APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0					

Sherman Rd

NORTH SIDE

Harrison Ave WEST SIDE EAST SIDE **Harrison Ave**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

T031126

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jun 3, 26

LOCATION: Perris
NORTH & SOUTH: Sherman Rd
EAST & WEST: Ethanac Rd

PROJECT #: SC6118
LOCATION #: 2
CONTROL: STOP N/S

NOTES:

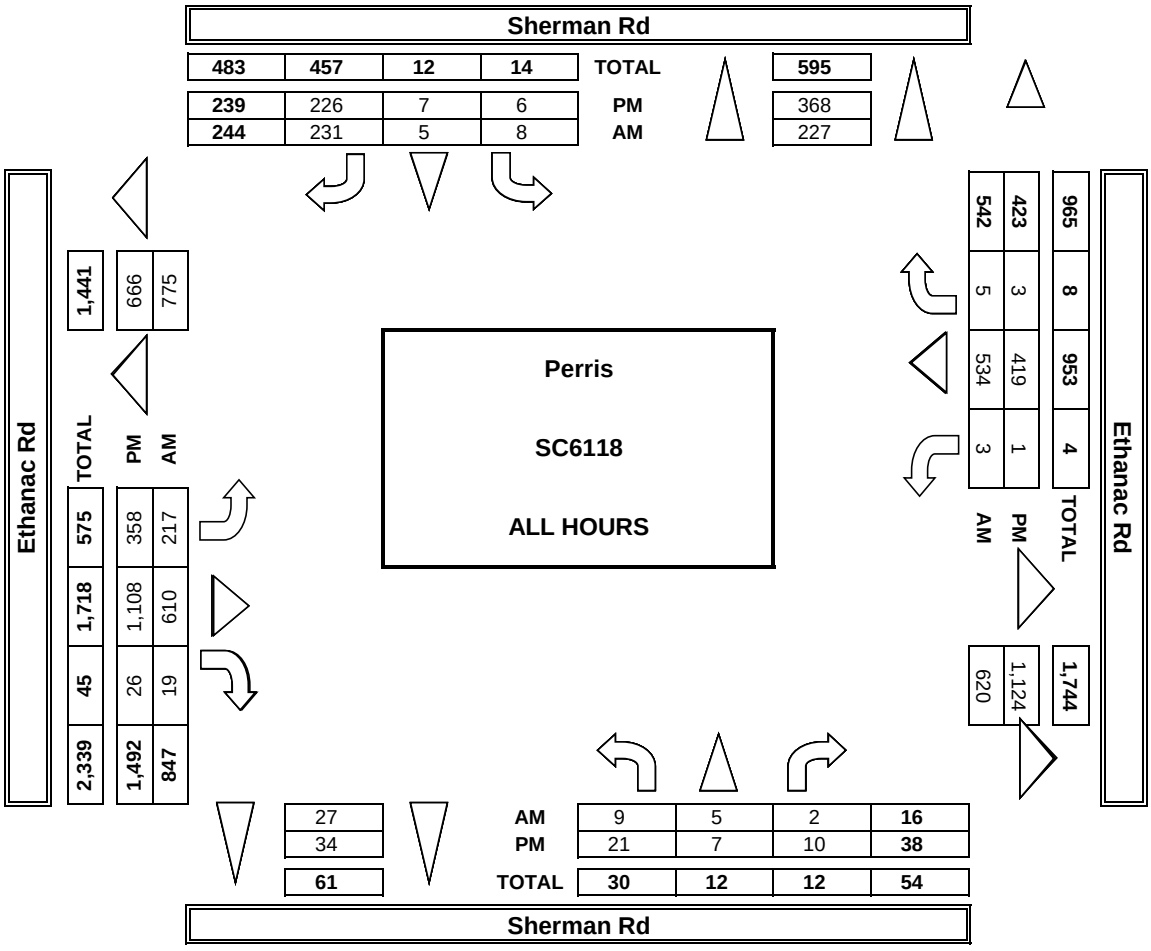
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

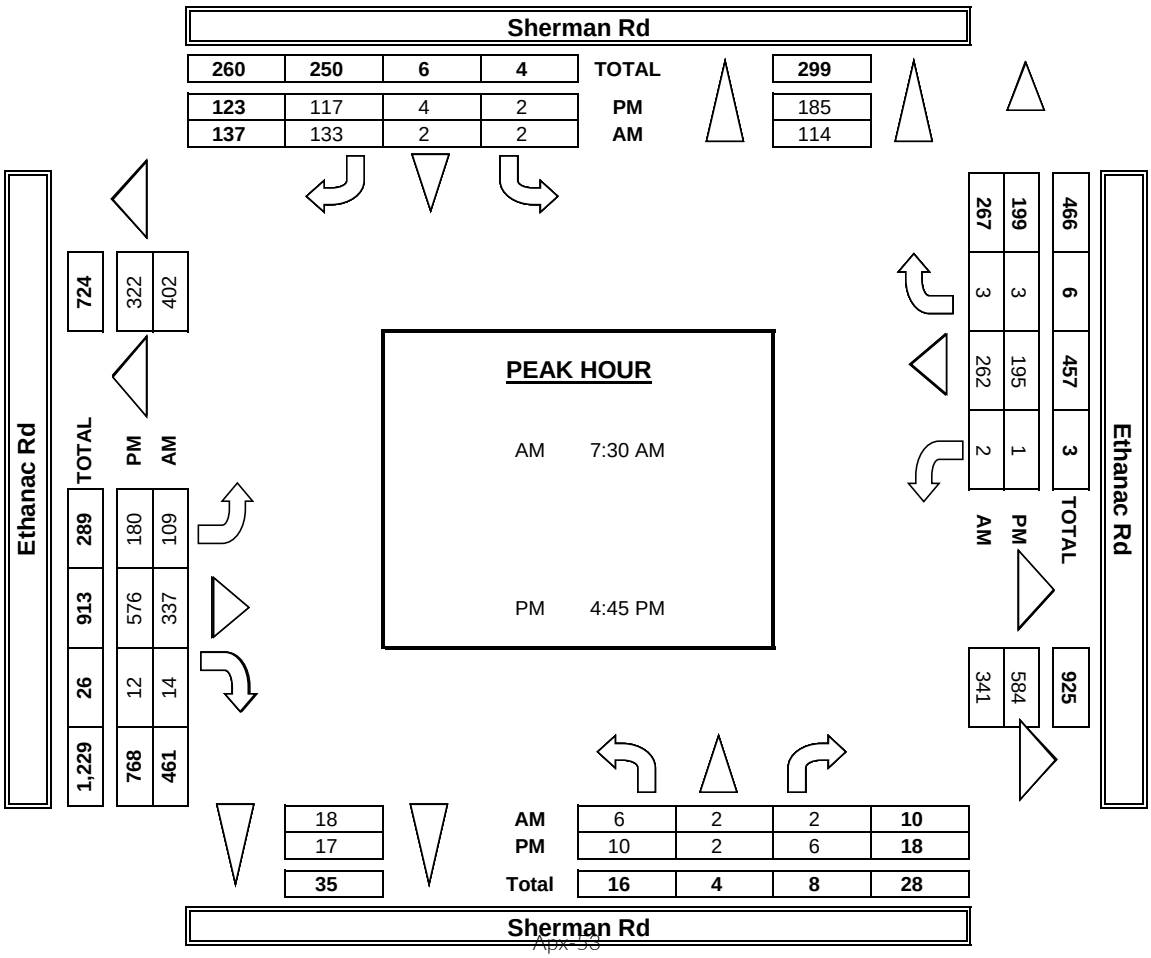
		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	2	0	19	21	65	0	1	71	1	180	0	0	0	0	0
	7:15 AM	0	0	0	1	1	24	20	66	2	0	75	0	189	0	0	0	0	0
	7:30 AM	1	1	1	0	0	28	24	97	4	2	70	1	229	0	0	0	0	0
	7:45 AM	1	1	0	1	1	40	17	87	4	0	64	0	216	0	0	0	0	0
	8:00 AM	2	0	1	1	1	24	32	74	3	0	75	1	214	0	0	1	0	1
	8:15 AM	2	0	0	0	0	41	36	79	3	0	53	1	215	0	0	0	0	0
	8:30 AM	0	3	0	0	2	29	29	73	2	0	63	0	201	0	0	0	0	0
	8:45 AM	3	0	0	3	0	26	38	69	1	0	63	1	204	0	0	0	0	0
	VOLUMES	9	5	2	8	5	231	217	610	19	3	534	5	1,649	0	0	1	0	1
	APPROACH %	56%	31%	13%	3%	2%	95%	26%	72%	2%	1%	99%	1%						
	APP/DEPART	16	/	227	244	/	27	847	/	620	542	/	775	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	6	2	2	2	2	133	109	337	14	2	262	3	875	0	0	1	0	
	APPROACH %	60%	20%	20%	1%	1%	97%	24%	73%	3%	1%	98%	1%						
	PEAK HR FACTOR		0.833			0.815			0.922			0.878		0.955					
	APP/DEPART	10	/	114	137	/	18	461	/	341	267	/	402	0					
PM	4:00 PM	3	1	2	3	1	33	41	127	2	0	67	0	280	0	0	0	0	0
	4:15 PM	5	3	1	0	0	23	55	148	1	0	55	0	291	0	0	0	0	0
	4:30 PM	1	1	0	1	2	26	39	125	7	0	48	0	250	0	0	0	0	0
	4:45 PM	4	1	3	1	0	25	46	144	7	1	51	0	283	0	0	0	0	0
	5:00 PM	3	0	2	1	1	35	38	145	2	0	45	2	274	0	0	0	0	0
	5:15 PM	2	1	1	0	2	34	55	140	2	0	40	0	277	0	0	0	0	0
	5:30 PM	1	0	0	0	1	23	41	147	1	0	59	1	274	0	0	0	0	0
	5:45 PM	2	0	1	0	0	27	43	132	4	0	54	0	263	0	0	0	0	0
	VOLUMES	21	7	10	6	7	226	358	1,108	26	1	419	3	2,192	0	0	0	0	0
	APPROACH %	55%	18%	26%	3%	3%	95%	24%	74%	2%	0%	99%	1%						
	APP/DEPART	38	/	368	239	/	34	1,492	/	1,124	423	/	666	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	10	2	6	2	4	117	180	576	12	1	195	3	1,108	0	0	0	0	
	APPROACH %	56%	11%	33%	2%	3%	95%	23%	75%	2%	1%	98%	2%						
	PEAK HR FACTOR		0.563			0.831			0.975			0.829		0.979					
	APP/DEPART	18	/	185	123	/	17	768	/	584	199	/	322	0					



AimTD LLC

TURNING MOVEMENT COUNTS





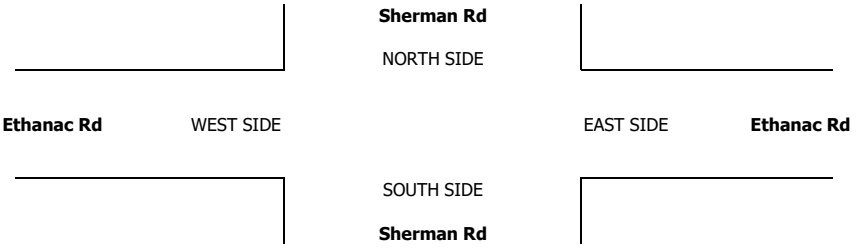
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER	▲ N ◄ W E ► S ▼	
	Factor	1	1.5	2	3	3	3					

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	4	0	20	24	80	0	1	83	2	213
	7:15 AM	0	0	0	1	1	27	21	77	2	0	88	0	216
	7:30 AM	2	1	2	0	0	33	25	106	8	5	76	1	255
	7:45 AM	3	3	0	1	1	45	18	97	4	0	73	0	244
	8:00 AM	2	0	1	1	1	27	33	85	3	0	84	2	238
	8:15 AM	4	0	0	0	0	42	39	88	6	0	58	2	238
	8:30 AM	0	3	0	0	4	32	32	89	2	0	71	0	232
	8:45 AM	4	0	0	3	0	29	41	84	1	0	75	1	237
	VOLUMES	14	7	3	10	7	253	230	705	25	6	606	7	1,871
	APPROACH %	60%	30%	11%	4%	3%	94%	24%	73%	3%	1%	98%	1%	
	APP/DEPART	24	/	244	270	/	38	960	/	717	618	/	873	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	11	4	3	2	2	145	114	376	20	5	290	4	974
	APPROACH %	62%	24%	15%	1%	1%	97%	22%	74%	4%	2%	97%	1%	
	PEAK HR FACTOR		0.708			0.801			0.925			0.873		0.954
	APP/DEPART	17	/	122	149	/	27	509	/	380	299	/	446	0
PM	4:00 PM	3	2	2	3	1	33	43	136	2	0	72	0	295
	4:15 PM	5	5	1	0	0	24	58	173	1	0	60	0	326
	4:30 PM	1	1	0	1	2	29	44	142	10	0	49	0	278
	4:45 PM	5	1	4	1	0	25	47	151	8	1	53	0	294
	5:00 PM	4	0	2	1	1	35	39	152	2	0	46	2	283
	5:15 PM	2	2	1	0	2	36	59	145	3	0	43	0	291
	5:30 PM	1	0	0	0	1	25	42	155	1	0	61	1	286
	5:45 PM	2	0	1	0	0	27	51	138	4	0	55	0	278
	VOLUMES	22	10	11	6	7	233	381	1,190	30	1	437	3	2,329
	APPROACH %	51%	23%	26%	2%	3%	95%	24%	74%	2%	0%	99%	1%	
	APP/DEPART	43	/	394	246	/	38	1,600	/	1,207	441	/	691	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	11	3	7	2	4	120	186	602	14	1	202	3	1,153
	APPROACH %	54%	12%	34%	2%	3%	95%	23%	75%	2%	0%	98%	1%	
	PEAK HR FACTOR		0.539			0.840			0.972			0.835		0.980
	APP/DEPART	21	/	192	126	/	19	801	/	611	206	/	333	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

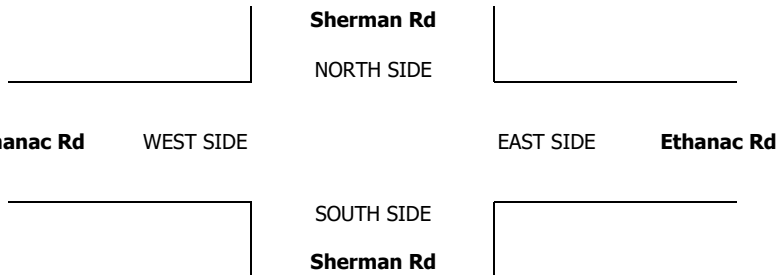
DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	1	0	17	19	53	0	1	59	0	150	0	0	0	0	0
7:15 AM	0	0	0	1	1	21	19	55	2	0	65	0	164	0	0	0	0	0
7:30 AM	0	1	0	0	0	25	23	87	1	0	64	1	202	0	0	0	0	0
7:45 AM	0	0	0	1	1	37	16	79	4	0	56	0	194	0	0	0	0	0
8:00 AM	2	0	1	1	1	22	31	67	3	0	66	0	194	0	0	0	0	0
8:15 AM	1	0	0	0	0	40	31	71	1	0	47	0	191	0	0	0	0	0
8:30 AM	0	3	0	0	1	26	27	63	2	0	57	0	179	0	0	0	0	0
8:45 AM	2	0	0	3	0	23	36	58	1	0	53	1	177	0	0	0	0	0
VOLUMES	5	4	1	7	4	211	202	533	14	1	467	2	1,451	0	0	0	0	0
APPROACH %	50%	40%	10%	3%	2%	95%	27%	71%	2%	0%	99%	0%						
APP/DEPART	10	/	208	222	/	19	749	/	541	470	/	683	0					
BEGIN PEAK HR		7:30 AM																
VOLUMES	3	1	1	2	2	124	101	304	9	0	233	1	781	0	0	0	0	
APPROACH %	60%	20%	20%	2%	2%	97%	24%	73%	2%	0%	100%	0%						
PEAK HR FACTOR		0.417			0.800			0.932			0.886		0.967					
APP/DEPART	5	/	103	128	/	11	414	/	307	234	/	360	0					
PM 4:00 PM	3	0	2	3	1	33	39	116	2	0	60	0	259	0	0	0	0	0
4:15 PM	5	2	1	0	0	21	53	122	1	0	51	0	256	0	0	0	0	0
4:30 PM	1	1	0	1	2	24	36	110	5	0	46	0	226	0	0	0	0	0
4:45 PM	3	1	2	1	0	25	45	134	6	1	48	0	266	0	0	0	0	0
5:00 PM	2	0	2	1	1	35	36	137	2	0	44	2	262	0	0	0	0	0
5:15 PM	2	0	1	0	2	32	50	135	1	0	37	0	260	0	0	0	0	0
5:30 PM	1	0	0	0	1	21	40	140	1	0	56	1	261	0	0	0	0	0
5:45 PM	2	0	1	0	0	27	36	124	4	0	53	0	247	0	0	0	0	0
VOLUMES	19	4	9	6	7	218	335	1,018	22	1	395	3	2,037	0	0	0	0	0
APPROACH %	59%	13%	28%	3%	3%	94%	24%	74%	2%	0%	99%	1%						
APP/DEPART	32	/	342	231	/	30	1,375	/	1,033	399	/	632	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	8	1	5	2	4	113	171	546	10	1	185	3	1,049	0	0	0	0	
APPROACH %	57%	7%	36%	2%	3%	95%	24%	75%	1%	1%	98%	2%						
PEAK HR FACTOR		0.583			0.804			0.977			0.829		0.986					
APP/DEPART	14	/	175	119	/	15	727	/	553	189	/	306	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

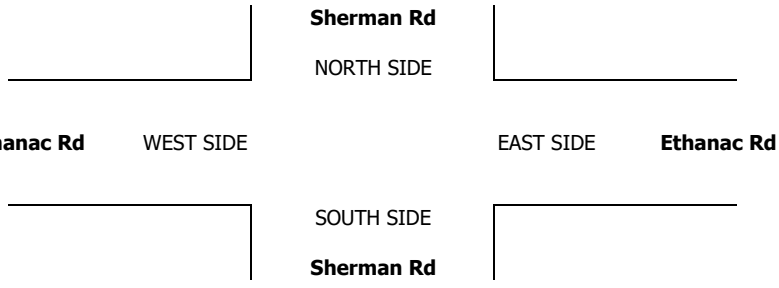
DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	2	1	6	0	0	6	1	16	0	0	0	0	0
7:15 AM	0	0	0	0	0	2	1	7	0	0	4	0	14	0	0	0	0	0
7:30 AM	1	0	1	0	0	1	1	7	1	1	3	0	16	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	1	4	0	0	3	0	9	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	1	2	0	0	2	1	7	0	0	1	0	1
8:15 AM	0	0	0	0	0	1	4	4	1	0	2	1	13	0	0	0	0	0
8:30 AM	0	0	0	0	0	2	0	3	0	0	3	0	8	0	0	0	0	0
8:45 AM	1	0	0	0	0	2	1	4	0	0	3	0	11	0	0	0	0	0
VOLUMES	2	0	1	0	0	12	10	37	2	1	26	3	95	0	0	1	0	1
APPROACH %	67%	0%	33%	0%	0%	100%	20%	74%	4%	3%	87%	10%						
APP/DEPART	3	/	13	12	/	3	50	/	38	30	/	41	0					
BEGIN PEAK HR		7:30 AM																
VOLUMES	1	0	1	0	0	4	7	17	2	1	10	2	46	0	0	1	0	
APPROACH %	50%	0%	50%	0%	0%	100%	26%	63%	7%	8%	77%	15%						
PEAK HR FACTOR		0.250			1.000			0.750			0.813		0.719					
APP/DEPART	2	/	9	4	/	3	27	/	18	13	/	16	0					
PM																		
4:00 PM	0	1	0	0	0	0	1	9	0	0	5	0	16	0	0	0	0	0
4:15 PM	0	0	0	0	0	2	1	17	0	0	2	0	22	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	1	8	1	0	2	0	13	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	1	9	0	0	3	0	14	0	0	0	0	0
5:00 PM	1	0	0	0	0	0	2	5	0	0	1	0	9	0	0	0	0	0
5:15 PM	0	1	0	0	0	1	4	3	1	0	2	0	12	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	1	2	0	0	3	0	7	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	4	6	0	0	1	0	11	0	0	0	0	0
VOLUMES	2	2	0	0	0	5	15	59	2	0	19	0	104	0	0	0	0	0
APPROACH %	50%	50%	0%	0%	0%	100%	20%	78%	3%	0%	100%	0%						
APP/DEPART	4	/	17	5	/	2	76	/	59	19	/	26	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	2	1	0	0	0	2	8	19	1	0	9	0	42	0	0	0	0	
APPROACH %	67%	33%	0%	0%	0%	100%	29%	68%	4%	0%	100%	0%						
PEAK HR FACTOR		0.750			0.500			0.700			0.750		0.750					
APP/DEPART	3	/	9	2	/	1	28	/	19	9	/	13	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

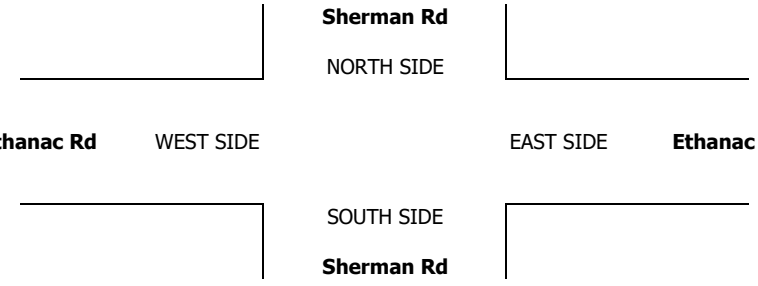
DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	1	0	2	0	4	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	1	0	0	4	0	6	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	4	0	5	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	2	4	1	0	23	0	30	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	29%	57%	14%	0%	100%	0%						
APP/DEPART	0	/	2	0	/	1	7	/	4	23	/	23	0					
BEGIN PEAK HR		7:30 AM																
VOLUMES	0	0	0	0	0	0	1	2	1	0	15	0	19	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	25%	50%	25%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.500			0.625		0.792					
APP/DEPART	0	/	1	0	/	1	4	/	2	15	/	15	0					
PM																		
4:00 PM	0	0	0	0	0	0	1	0	0	0	2	0	3	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	3	0	0	0	0	4	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
VOLUMES	0	0	1	0	0	2	1	10	1	0	2	0	17	0	0	0	0	0
APPROACH %	0%	0%	100%	0%	0%	100%	8%	83%	8%	0%	100%	0%						
APP/DEPART	1	/	1	2	/	1	12	/	11	2	/	4	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	1	0	0	2	0	6	1	0	0	0	10	0	0	0	0	
APPROACH %	0%	0%	100%	0%	0%	100%	0%	86%	14%	0%	0%	0%						
PEAK HR FACTOR		0.250			0.500			0.583			0.000		0.625					
APP/DEPART	1	/	0	2	/	1	7	/	7	0	/	2	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	1	5	0	0	2	0	8	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	2	0	0	5	0	8	0	0	0	0	0
7:30 AM	0	0	0	0	0	2	0	1	1	1	1	0	6	0	0	0	0	0
7:45 AM	1	1	0	0	0	1	0	2	0	0	2	0	7	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	4	0	0	1	0	6	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	3	1	0	0	0	5	0	0	0	0	0
8:30 AM	0	0	0	0	1	1	1	6	0	0	2	0	11	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	1	6	0	0	2	0	10	0	0	0	0	0
VOLUMES	2	1	0	0	1	7	3	29	2	1	15	0	61	0	0	0	0	0
APPROACH %	67%	33%	0%	0%	13%	88%	9%	85%	6%	6%	94%	0%						
APP/DEPART	3	/	4	8	/	4	34	/	29	16	/	24	0					
BEGIN PEAK HR		7:30 AM																
VOLUMES	2	1	0	0	0	4	0	10	2	1	4	0	24	0	0	0	0	
APPROACH %	67%	33%	0%	0%	0%	100%	0%	83%	17%	20%	80%	0%						
PEAK HR FACTOR		0.375			0.500			0.750			0.625		0.857					
APP/DEPART	3	/	1	4	/	3	12	/	10	5	/	10	0					
PM																		
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	3	0	0	2	0	6	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	2	6	1	0	0	0	10	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	1	0	0	1	0	3	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	3	1	0	0	0	0	4	0	0	0	0	0
VOLUMES	0	1	0	0	0	1	6	17	1	0	3	0	29	0	0	0	0	0
APPROACH %	0%	100%	0%	0%	0%	100%	25%	71%	4%	0%	100%	0%						
APP/DEPART	1	/	7	1	/	1	24	/	17	3	/	4	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	0	0	0	0	1	5	0	0	1	0	7	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	17%	83%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.750			0.250		0.583					
APP/DEPART	0	/	1	0	/	0	6	/	5	1	/	1	0					

Sherman Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Sherman Rd

NORTH SIDE

Ethanac Rd WEST SIDE EAST SIDE **Ethanac Rd**

SOUTH SIDE

Sherman Rd

INTERSECTION TURNING MOVEMENT COUNTS

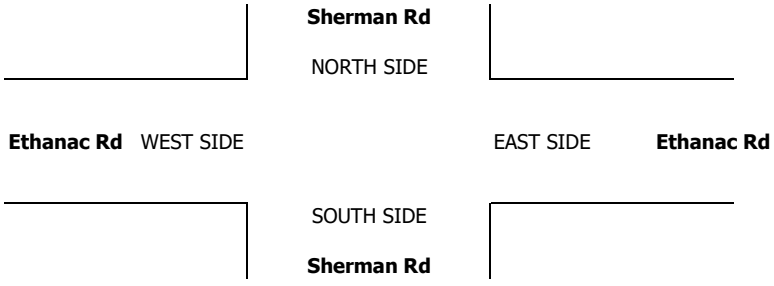
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC6118
6/3/26	NORTH & SOUTH:	Sherman Rd	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Ethanac Rd	CONTROL:	STOP N/S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sherman Rd			SOUTHBOUND Sherman Rd			EASTBOUND Ethanac Rd			WESTBOUND Ethanac Rd				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	1	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	1	0	2	0	0	0	0	3	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	VOLUMES	0	0	0	1	0	1	0	6	0	0	3	0	11	0	0	0	0	0
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	2	/	0	6	/	7	3	/	4	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	0	0	1	0	4	0	0	0	0	5	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.250			0.500			0.000		0.417					
	APP/DEPART	0	/	0	1	/	0	4	/	4	0	/	1	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	20%	80%	0%	0%	0%	0%						
	APP/DEPART	0	/	1	0	/	0	5	/	4	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					



21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Wednesday, February 25, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	2	0	0	0	0	0	2
0:15	0	0	0	0	0	0	0	12:15	1	0	0	0	0	0	1
0:30	0	0	0	0	0	0	0	12:30	2	0	0	0	0	0	2
0:45	0	0	0	0	0	0	0	12:45	1	2	0	0	0	0	3
1:00	0	0	0	0	0	0	0	13:00	2	1	0	0	0	0	3
1:15	1	0	0	0	0	0	1	13:15	4	1	1	0	0	0	6
1:30	0	0	0	0	0	0	0	13:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	13:45	2	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	14:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	14:15	1	1	1	1	0	0	4
2:30	0	0	0	0	0	0	0	14:30	0	0	1	0	0	0	1
2:45	0	0	0	0	0	0	0	14:45	0	1	0	0	0	0	1
3:00	0	0	0	0	0	0	0	15:00	1	0	0	0	0	0	1
3:15	0	0	0	0	0	0	0	15:15	1	0	0	0	0	0	1
3:30	4	0	0	0	0	0	4	15:30	0	0	1	0	0	0	1
3:45	4	0	0	0	0	0	4	15:45	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	16:00	0	0	1	0	0	0	1
4:15	2	0	0	0	0	0	2	16:15	0	0	1	0	0	0	1
4:30	1	0	0	0	0	0	1	16:30	0	0	0	0	0	0	0
4:45	5	0	0	0	0	0	5	16:45	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	17:00	0	0	0	0	0	0	0
5:15	0	1	0	0	0	0	1	17:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	17:30	0	0	0	0	0	0	0
5:45	4	0	0	0	0	0	4	17:45	0	0	0	0	0	0	0
6:00	0	1	0	0	0	0	1	18:00	0	0	0	0	0	0	0
6:15	1	0	0	0	0	0	1	18:15	1	0	0	0	0	0	1
6:30	4	0	0	0	0	0	4	18:30	0	1	0	1	0	0	2
6:45	4	2	0	0	0	0	6	18:45	0	1	1	0	0	0	2
7:00	3	0	1	0	0	0	4	19:00	0	0	0	0	0	0	0
7:15	2	0	0	0	0	0	2	19:15	0	0	0	0	0	0	0
7:30	3	0	1	0	0	0	4	19:30	0	0	0	0	0	0	0
7:45	6	1	0	0	0	0	7	19:45	0	0	0	0	0	0	0
8:00	2	1	0	0	0	0	3	20:00	0	0	0	0	0	0	0
8:15	4	0	0	0	0	0	4	20:15	0	0	0	0	0	0	0
8:30	4	0	0	0	0	0	4	20:30	0	0	0	0	0	0	0
8:45	0	1	1	0	0	0	2	20:45	0	0	0	0	0	0	0
9:00	3	1	0	0	0	0	4	21:00	0	0	0	0	0	0	0
9:15	2	0	0	0	0	0	2	21:15	0	0	0	0	0	0	0
9:30	1	1	0	0	0	0	2	21:30	0	0	0	0	0	0	0
9:45	1	0	0	0	0	0	1	21:45	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	1	0	0	0	0	0	1	22:30	0	0	0	0	0	0	0
10:45	1	0	0	0	0	0	1	22:45	0	0	0	0	0	0	0
11:00	0	0	1	0	0	0	1	23:00	0	0	0	0	0	0	0
11:15	1	2	0	0	0	0	3	23:15	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	23:30	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	23:45	1	0	0	0	0	0	1
TOTAL	64	11	4	0	0	0	79	**TOTAL**	20	8	7	2	0	0	37

AM PEAK HOUR	7:45 AM	**PM PEAK HOUR**	12:30 PM
AM PEAK VOLUME	18	**PM PEAK VOLUME**	14

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	84	19	11	2	0	0	116
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	72.4%	16.4%	9.5%	1.7%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	168	38	18	5	0	0	229
CLASS 6	Buses	**% OF TOTAL**	73.4%	16.6%	7.9%	2.2%	0.0%	0.0%	100.0%

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Wednesday, February 25, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave

AM	OUT							PM	OUT						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	2	0	0	0	0	0	2
0:15	0	0	0	0	0	0	0	12:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	12:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	12:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	13:00	3	0	0	0	0	0	3
1:15	0	0	0	0	0	0	0	13:15	4	0	0	0	0	0	4
1:30	1	0	0	0	0	0	1	13:30	4	0	0	0	0	0	4
1:45	0	0	0	0	0	0	0	13:45	1	1	0	0	0	0	2
2:00	0	0	0	0	0	0	0	14:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	14:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	14:30	5	1	1	0	0	0	7
2:45	0	0	0	0	0	0	0	14:45	1	1	1	0	0	0	3
3:00	0	0	0	0	0	0	0	15:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	15:15	3	0	0	0	0	0	3
3:30	0	0	0	0	0	0	0	15:30	2	0	0	0	0	0	2
3:45	0	1	0	1	0	0	2	15:45	4	0	0	0	0	0	4
4:00	0	0	0	2	0	0	2	16:00	7	0	0	0	0	0	7
4:15	0	0	0	0	0	0	0	16:15	3	0	0	0	0	0	3
4:30	0	1	1	0	0	0	2	16:30	5	0	0	0	0	0	5
4:45	1	1	0	0	0	0	2	16:45	2	0	0	0	0	0	2
5:00	1	0	1	0	0	0	2	17:00	6	0	0	0	0	0	6
5:15	0	2	0	0	0	0	2	17:15	1	0	0	0	0	0	1
5:30	0	1	0	0	0	0	1	17:30	0	0	0	0	0	0	0
5:45	1	0	0	0	0	0	1	17:45	2	0	0	0	0	0	2
6:00	2	0	1	0	0	0	3	18:00	0	0	0	0	0	0	0
6:15	0	1	0	0	0	0	1	18:15	1	0	0	0	0	0	1
6:30	1	0	0	0	0	0	1	18:30	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	18:45	2	0	0	0	0	0	2
7:00	0	1	0	0	0	0	1	19:00	2	0	0	0	0	0	2
7:15	0	1	1	0	0	0	2	19:15	1	0	0	0	0	0	1
7:30	0	0	0	0	0	0	0	19:30	0	0	0	0	0	0	0
7:45	1	0	0	0	0	0	1	19:45	0	0	0	0	0	0	0
8:00	2	2	0	0	0	0	4	20:00	0	0	0	0	0	0	0
8:15	0	2	0	0	0	0	2	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	1	1	0	0	0	0	2	20:45	0	0	0	0	0	0	0
9:00	2	0	1	0	0	0	3	21:00	0	0	0	0	0	0	0
9:15	0	1	0	0	0	0	1	21:15	0	0	0	0	0	0	0
9:30	0	1	0	0	0	0	1	21:30	0	0	0	0	0	0	0
9:45	2	0	0	0	0	0	2	21:45	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	22:30	0	0	0	0	0	0	0
10:45	1	0	0	0	0	0	1	22:45	0	0	0	0	0	0	0
11:00	2	0	0	0	0	0	2	23:00	0	0	0	0	0	0	0
11:15	2	0	0	0	0	0	2	23:15	0	0	0	0	0	0	0
11:30	1	0	0	0	0	0	1	23:30	0	0	0	0	0	0	0
11:45	2	0	0	0	0	0	2	23:45	0	0	0	0	0	0	0
TOTAL	23	16	5	3	0	0	47	TOTAL	61	3	2	0	0	0	66

AM PEAK HOUR	8:00 AM
AM PEAK VOLUME	8

PM PEAK HOUR	3:45 PM
PM PEAK VOLUME	19

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

	1	2	3	4	5	6	TOTAL
TOTAL: AM+PM	84	19	7	3	0	0	113
% OF TOTAL	74.3%	16.8%	6.2%	2.7%	0.0%	0.0%	100.0%

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Wednesday, February 25, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave

AM	COMBINED							PM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	4	0	0	0	0	0	4
0:15	0	0	0	0	0	0	0	12:15	1	0	0	0	0	0	1
0:30	0	0	0	0	0	0	0	12:30	2	0	0	0	0	0	2
0:45	0	0	0	0	0	0	0	12:45	1	2	0	0	0	0	3
1:00	0	0	0	0	0	0	0	13:00	5	1	0	0	0	0	6
1:15	1	0	0	0	0	0	1	13:15	8	1	1	0	0	0	10
1:30	1	0	0	0	0	0	1	13:30	4	0	0	0	0	0	4
1:45	0	0	0	0	0	0	0	13:45	3	1	0	0	0	0	4
2:00	0	0	0	0	0	0	0	14:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	14:15	1	1	1	1	0	0	4
2:30	0	0	0	0	0	0	0	14:30	5	1	2	0	0	0	8
2:45	0	0	0	0	0	0	0	14:45	1	2	1	0	0	0	4
3:00	0	0	0	0	0	0	0	15:00	1	0	0	0	0	0	1
3:15	0	0	0	0	0	0	0	15:15	4	0	0	0	0	0	4
3:30	4	0	0	0	0	0	4	15:30	2	0	1	0	0	0	3
3:45	4	1	0	1	0	0	6	15:45	5	0	0	0	0	0	5
4:00	0	0	0	2	0	0	2	16:00	7	0	1	0	0	0	8
4:15	2	0	0	0	0	0	2	16:15	3	0	1	0	0	0	4
4:30	1	1	1	0	0	0	3	16:30	5	0	0	0	0	0	5
4:45	6	1	0	0	0	0	7	16:45	2	0	0	0	0	0	2
5:00	1	0	1	0	0	0	2	17:00	6	0	0	0	0	0	6
5:15	0	3	0	0	0	0	3	17:15	1	0	0	0	0	0	1
5:30	0	1	0	0	0	0	1	17:30	0	0	0	0	0	0	0
5:45	5	0	0	0	0	0	5	17:45	2	0	0	0	0	0	2
6:00	2	1	1	0	0	0	4	18:00	0	0	0	0	0	0	0
6:15	1	1	0	0	0	0	2	18:15	2	0	0	0	0	0	2
6:30	5	0	0	0	0	0	5	18:30	0	1	0	1	0	0	2
6:45	4	2	0	0	0	0	6	18:45	2	1	1	0	0	0	4
7:00	3	1	1	0	0	0	5	19:00	2	0	0	0	0	0	2
7:15	2	1	1	0	0	0	4	19:15	1	0	0	0	0	0	1
7:30	3	0	1	0	0	0	4	19:30	0	0	0	0	0	0	0
7:45	7	1	0	0	0	0	8	19:45	0	0	0	0	0	0	0
8:00	4	3	0	0	0	0	7	20:00	0	0	0	0	0	0	0
8:15	4	2	0	0	0	0	6	20:15	0	0	0	0	0	0	0
8:30	4	0	0	0	0	0	4	20:30	0	0	0	0	0	0	0
8:45	1	2	1	0	0	0	4	20:45	0	0	0	0	0	0	0
9:00	5	1	1	0	0	0	7	21:00	0	0	0	0	0	0	0
9:15	2	1	0	0	0	0	3	21:15	0	0	0	0	0	0	0
9:30	1	2	0	0	0	0	3	21:30	0	0	0	0	0	0	0
9:45	3	0	0	0	0	0	3	21:45	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	1	0	0	0	0	0	1	22:30	0	0	0	0	0	0	0
10:45	2	0	0	0	0	0	2	22:45	0	0	0	0	0	0	0
11:00	2	0	1	0	0	0	3	23:00	0	0	0	0	0	0	0
11:15	3	2	0	0	0	0	5	23:15	0	0	0	0	0	0	0
11:30	1	0	0	0	0	0	1	23:30	0	0	0	0	0	0	0
11:45	2	0	0	0	0	0	2	23:45	1	0	0	0	0	0	1
TOTAL	87	27	9	3	0	0	126	TOTAL	81	11	9	2	0	0	103

AM PEAK HOUR	7:45 AM
AM PEAK VOLUME	25

PM PEAK HOUR	1:00 PM
PM PEAK VOLUME	24

TOTAL: AM+PM	168	38	18	5	0	0	229
% OF TOTAL	73.4%	16.6%	7.9%	2.2%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, March 19, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave.TH

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	3	0	0	0	0	0	3
0:15	0	0	0	0	0	0	0	12:15	1	0	1	0	0	0	2
0:30	0	0	0	0	0	0	0	12:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	12:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	13:00	0	0	0	1	0	0	1
1:15	0	0	0	0	0	0	0	13:15	2	1	0	1	0	0	4
1:30	0	0	0	0	0	0	0	13:30	4	0	0	0	0	0	4
1:45	0	0	0	0	0	0	0	13:45	4	1	0	0	0	0	5
2:00	0	0	0	0	0	0	0	14:00	0	0	1	0	0	0	1
2:15	0	0	0	0	0	0	0	14:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	14:30	0	2	1	0	0	0	3
2:45	0	0	0	0	0	0	0	14:45	1	1	0	0	0	0	2
3:00	0	0	0	0	0	0	0	15:00	1	0	2	0	0	0	3
3:15	1	0	0	0	0	0	1	15:15	1	1	1	0	0	0	3
3:30	0	0	0	0	0	0	0	15:30	3	1	0	1	0	0	5
3:45	0	0	1	0	0	0	1	15:45	0	0	0	0	0	0	0
4:00	2	0	0	0	0	0	2	16:00	2	1	0	0	0	0	3
4:15	5	0	0	0	0	0	5	16:15	2	0	0	0	0	0	2
4:30	2	0	0	0	0	0	2	16:30	0	0	0	0	0	0	0
4:45	2	2	0	0	0	0	4	16:45	1	3	0	0	0	0	4
5:00	1	2	0	0	0	0	3	17:00	1	0	0	0	0	0	1
5:15	1	0	0	0	0	0	1	17:15	0	1	0	0	0	0	1
5:30	1	1	0	0	0	0	2	17:30	0	0	0	0	0	0	0
5:45	2	0	0	0	0	0	2	17:45	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	18:00	0	0	0	0	0	0	0
6:15	3	0	0	0	0	0	3	18:15	0	0	0	0	0	0	0
6:30	2	0	0	0	0	0	2	18:30	0	0	0	0	0	0	0
6:45	7	0	0	0	0	0	7	18:45	0	0	0	0	0	0	0
7:00	5	0	0	0	0	0	5	19:00	0	0	0	0	0	0	0
7:15	1	1	0	0	0	0	2	19:15	0	0	0	0	0	0	0
7:30	5	0	0	0	0	0	5	19:30	0	0	0	0	0	0	0
7:45	1	0	0	0	0	0	1	19:45	0	0	0	0	0	0	0
8:00	2	1	0	0	0	0	3	20:00	0	0	0	0	0	0	0
8:15	5	1	0	0	0	0	6	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	3	0	0	0	0	0	3	20:45	0	0	0	0	0	0	0
9:00	2	1	0	0	0	0	3	21:00	0	0	0	0	0	0	0
9:15	3	0	2	0	0	0	5	21:15	0	0	0	0	0	0	0
9:30	1	0	0	0	0	0	1	21:30	0	0	0	0	0	0	0
9:45	1	0	0	0	0	0	1	21:45	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	1	0	0	1	0	0	2	22:30	0	0	0	0	0	0	0
10:45	0	1	0	0	0	0	1	22:45	0	0	0	0	0	0	0
11:00	1	0	0	0	0	0	1	23:00	0	0	0	0	0	0	0
11:15	0	1	0	0	0	0	1	23:15	0	0	0	0	0	0	0
11:30	0	0	1	1	0	0	2	23:30	1	0	0	0	0	0	1
11:45	3	0	0	0	0	0	3	23:45	0	0	0	0	0	0	0
TOTAL	63	11	4	2	0	0	80	**TOTAL**	27	12	6	3	0	0	48

AM PEAK HOUR	6:45 AM	**PM PEAK HOUR**	1:15 PM
AM PEAK VOLUME	19	**PM PEAK VOLUME**	14

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	90	23	10	5	0	0	128
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	70.3%	18.0%	7.8%	3.9%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	182	46	22	8	0	0	258
CLASS 6	Buses	**% OF TOTAL**	70.5%	17.8%	8.5%	3.1%	0.0%	0.0%	100.0%

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, March 19, 2026
JOB #: SC5877
CITY: Perris
LOCATION: CLASS1 Green Bee Dwy east of Seaton Ave.TH

AM TIME	OUT 1	2	3	4	5	6	TOTAL	PM Time	OUT 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0	12:15	1	0	0	0	0	0	1
0:30	0	0	0	0	0	0	0	12:30	3	0	0	0	0	0	3
0:45	0	0	0	0	0	0	0	12:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	13:00	2	0	0	0	0	0	2
1:15	0	0	0	0	0	0	0	13:15	1	0	0	0	0	0	1
1:30	0	0	0	0	0	0	0	13:30	3	0	1	0	0	0	4
1:45	0	0	0	0	0	0	0	13:45	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	14:00	1	0	0	0	0	0	1
2:15	0	0	0	0	0	0	0	14:15	4	0	0	0	0	0	4
2:30	0	0	0	0	0	0	0	14:30	2	1	0	0	0	0	3
2:45	0	0	0	0	0	0	0	14:45	0	0	0	0	0	0	0
3:00	0	0	1	0	0	0	1	15:00	1	0	0	0	0	0	1
3:15	0	0	0	0	0	0	0	15:15	6	0	0	0	0	0	6
3:30	0	0	0	0	0	0	0	15:30	7	1	0	0	0	0	8
3:45	0	2	0	1	0	0	3	15:45	12	0	0	0	0	0	12
4:00	0	0	0	0	0	0	0	16:00	5	0	0	0	0	0	5
4:15	0	0	0	0	0	0	0	16:15	4	0	0	0	0	0	4
4:30	0	1	0	1	0	0	2	16:30	4	1	0	0	0	0	5
4:45	0	0	1	0	0	0	1	16:45	3	1	0	0	0	0	4
5:00	1	2	0	0	0	0	3	17:00	6	0	0	0	0	0	6
5:15	0	1	3	0	0	0	4	17:15	0	0	0	0	0	0	0
5:30	0	0	1	0	0	0	1	17:30	1	0	0	0	0	0	1
5:45	1	0	0	0	0	0	1	17:45	1	0	0	0	0	0	1
6:00	1	2	1	0	0	0	4	18:00	0	0	0	0	0	0	0
6:15	1	0	0	0	0	0	1	18:15	1	0	0	0	0	0	1
6:30	1	1	0	0	0	0	2	18:30	0	0	0	0	0	0	0
6:45	0	2	0	0	0	0	2	18:45	2	0	0	0	0	0	2
7:00	0	0	0	0	0	0	0	19:00	1	0	0	0	0	0	1
7:15	0	0	0	0	0	0	0	19:15	0	0	0	0	0	0	0
7:30	0	1	0	0	0	0	1	19:30	0	0	0	0	0	0	0
7:45	2	1	0	0	0	0	3	19:45	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	20:00	0	0	0	0	0	0	0
8:15	0	1	0	0	0	0	1	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	0	0	1	0	0	0	1	20:45	0	0	0	0	0	0	0
9:00	0	2	0	0	0	0	2	21:00	0	0	0	0	0	0	0
9:15	1	1	1	0	0	0	3	21:15	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	21:30	0	0	0	0	0	0	0
9:45	1	0	0	0	0	0	1	21:45	0	0	0	0	0	0	0
10:00	2	0	0	0	0	0	2	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	1	0	0	0	0	0	1	22:30	0	0	0	0	0	0	0
10:45	1	0	1	0	0	0	2	22:45	0	0	0	0	0	0	0
11:00	1	1	0	0	0	0	2	23:00	0	0	0	0	0	0	0
11:15	2	1	0	0	0	0	3	23:15	0	0	0	0	0	0	0
11:30	1	0	1	0	0	0	2	23:30	0	0	0	0	0	0	0
11:45	2	0	0	1	0	0	3	23:45	1	0	0	0	0	0	1
TOTAL	19	19	11	3	0	0	52	**TOTAL**	73	4	1	0	0	0	78

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	10

PM PEAK HOUR	3:15 PM
PM PEAK VOLUME	31

		1	2	3	4	5	6	
TOTAL: AM+PM		92	23	12	3	0	0	130
% OF TOTAL		70.8%	17.7%	9.2%	2.3%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Thursday, March 19, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave.TH

AM	COMBINED							PM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	3	0	0	0	0	0	3
0:15	0	0	0	0	0	0	0	12:15	2	0	1	0	0	0	3
0:30	0	0	0	0	0	0	0	12:30	3	0	0	0	0	0	3
0:45	0	0	0	0	0	0	0	12:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	13:00	2	0	0	1	0	0	3
1:15	0	0	0	0	0	0	0	13:15	3	1	0	1	0	0	5
1:30	0	0	0	0	0	0	0	13:30	7	0	1	0	0	0	8
1:45	0	0	0	0	0	0	0	13:45	5	1	0	0	0	0	6
2:00	0	0	0	0	0	0	0	14:00	1	0	1	0	0	0	2
2:15	0	0	0	0	0	0	0	14:15	4	0	0	0	0	0	4
2:30	0	0	0	0	0	0	0	14:30	2	3	1	0	0	0	6
2:45	0	0	0	0	0	0	0	14:45	1	1	0	0	0	0	2
3:00	0	0	1	0	0	0	1	15:00	2	0	2	0	0	0	4
3:15	1	0	0	0	0	0	1	15:15	7	1	1	0	0	0	9
3:30	0	0	0	0	0	0	0	15:30	10	2	0	1	0	0	13
3:45	0	2	1	1	0	0	4	15:45	12	0	0	0	0	0	12
4:00	2	0	0	0	0	0	2	16:00	7	1	0	0	0	0	8
4:15	5	0	0	0	0	0	5	16:15	6	0	0	0	0	0	6
4:30	2	1	0	1	0	0	4	16:30	4	1	0	0	0	0	5
4:45	2	2	1	0	0	0	5	16:45	4	4	0	0	0	0	8
5:00	2	4	0	0	0	0	6	17:00	7	0	0	0	0	0	7
5:15	1	1	3	0	0	0	5	17:15	0	1	0	0	0	0	1
5:30	1	1	1	0	0	0	3	17:30	1	0	0	0	0	0	1
5:45	3	0	0	0	0	0	3	17:45	1	0	0	0	0	0	1
6:00	1	2	1	0	0	0	4	18:00	0	0	0	0	0	0	0
6:15	4	0	0	0	0	0	4	18:15	1	0	0	0	0	0	1
6:30	3	1	0	0	0	0	4	18:30	0	0	0	0	0	0	0
6:45	7	2	0	0	0	0	9	18:45	2	0	0	0	0	0	2
7:00	5	0	0	0	0	0	5	19:00	1	0	0	0	0	0	1
7:15	1	1	0	0	0	0	2	19:15	0	0	0	0	0	0	0
7:30	5	1	0	0	0	0	6	19:30	0	0	0	0	0	0	0
7:45	3	1	0	0	0	0	4	19:45	0	0	0	0	0	0	0
8:00	2	1	0	0	0	0	3	20:00	0	0	0	0	0	0	0
8:15	5	2	0	0	0	0	7	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	3	0	1	0	0	0	4	20:45	0	0	0	0	0	0	0
9:00	2	3	0	0	0	0	5	21:00	0	0	0	0	0	0	0
9:15	4	1	3	0	0	0	8	21:15	0	0	0	0	0	0	0
9:30	1	0	0	0	0	0	1	21:30	0	0	0	0	0	0	0
9:45	2	0	0	0	0	0	2	21:45	0	0	0	0	0	0	0
10:00	2	0	0	0	0	0	2	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	2	0	0	1	0	0	3	22:30	0	0	0	0	0	0	0
10:45	1	1	1	0	0	0	3	22:45	0	0	0	0	0	0	0
11:00	2	1	0	0	0	0	3	23:00	0	0	0	0	0	0	0
11:15	2	2	0	0	0	0	4	23:15	0	0	0	0	0	0	0
11:30	1	0	2	1	0	0	4	23:30	1	0	0	0	0	0	1
11:45	5	0	0	1	0	0	6	23:45	1	0	0	0	0	0	1
TOTAL	82	30	15	5	0	0	132	TOTAL	100	16	7	3	0	0	126

AM PEAK HOUR	6:45 AM	PM PEAK HOUR	3:15 PM
AM PEAK VOLUME	22	PM PEAK VOLUME	42

TOTAL: AM+PM	182	46	22	8	0	0	258
% OF TOTAL	70.5%	17.8%	8.5%	3.1%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, March 24, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave.TU

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	2	0	0	0	0	0	2
0:15	0	0	0	0	0	0	0	12:15	3	0	0	0	0	0	3
0:30	0	0	0	0	0	0	0	12:30	1	0	1	0	0	0	2
0:45	0	0	0	0	0	0	0	12:45	0	0	1	1	0	0	2
1:00	0	0	0	0	0	0	0	13:00	1	0	0	0	0	0	1
1:15	0	0	0	0	0	0	0	13:15	0	0	0	1	0	0	1
1:30	0	0	1	0	0	0	1	13:30	0	1	1	0	0	0	2
1:45	0	0	0	0	0	0	0	13:45	0	1	0	0	0	0	1
2:00	0	0	0	0	0	0	0	14:00	2	2	0	0	0	0	4
2:15	0	0	0	0	0	0	0	14:15	1	0	1	0	0	0	2
2:30	0	0	0	0	0	0	0	14:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	14:45	0	1	0	0	0	0	1
3:00	1	0	0	0	0	0	1	15:00	0	2	1	0	0	0	3
3:15	4	0	0	0	0	0	4	15:15	1	2	0	1	0	0	4
3:30	3	0	0	0	0	0	3	15:30	2	0	0	0	0	0	2
3:45	2	0	0	0	0	0	2	15:45	0	0	1	0	0	0	1
4:00	3	0	0	0	0	0	3	16:00	1	0	0	0	0	0	1
4:15	1	0	0	0	0	0	1	16:15	0	0	0	0	0	0	0
4:30	1	0	0	0	0	0	1	16:30	0	1	0	0	0	0	1
4:45	3	0	0	0	0	0	3	16:45	0	0	1	0	0	0	1
5:00	2	0	0	0	0	0	2	17:00	0	0	1	1	0	0	2
5:15	0	0	0	0	0	0	0	17:15	1	1	0	0	0	0	2
5:30	3	0	0	0	0	0	3	17:30	0	0	0	0	0	0	0
5:45	2	1	0	0	0	0	3	17:45	0	1	0	0	0	0	1
6:00	1	1	0	0	0	0	2	18:00	0	0	0	0	0	0	0
6:15	3	0	0	0	0	0	3	18:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	18:30	0	0	0	0	0	0	0
6:45	9	1	0	0	0	0	10	18:45	0	0	0	0	0	0	0
7:00	3	0	0	0	0	0	3	19:00	0	0	0	0	0	0	0
7:15	5	0	0	0	0	0	5	19:15	0	0	0	0	0	0	0
7:30	1	0	0	0	0	0	1	19:30	0	0	0	0	0	0	0
7:45	7	0	0	0	0	0	7	19:45	1	0	0	0	0	0	1
8:00	1	0	0	0	0	0	1	20:00	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	1	0	0	0	0	0	1	20:45	0	0	0	0	0	0	0
9:00	2	1	0	0	0	0	3	21:00	0	0	0	0	0	0	0
9:15	1	0	0	0	0	0	1	21:15	0	0	0	0	0	0	0
9:30	1	0	0	0	0	0	1	21:30	0	0	0	0	0	0	0
9:45	2	0	0	0	0	0	2	21:45	0	0	0	0	0	0	0
10:00	1	0	0	0	0	0	1	22:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	22:15	0	0	0	0	0	0	0
10:30	2	0	0	0	0	0	2	22:30	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	22:45	0	0	0	0	0	0	0
11:00	1	0	0	0	0	0	1	23:00	0	0	0	0	0	0	0
11:15	1	0	0	0	0	0	1	23:15	1	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	23:30	0	0	0	0	0	0	0
11:45	2	1	0	0	0	0	3	23:45	1	0	0	0	0	0	1
TOTAL	69	5	1	0	0	0	75	TOTAL	18	12	8	4	0	0	42

AM PEAK HOUR	6:45 AM
AM PEAK VOLUME	19

PM PEAK HOUR	3:00 PM
PM PEAK VOLUME	10

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	87	17	9	4	0	0	117
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	74.4%	14.5%	7.7%	3.4%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	169	35	19	8	0	0	231
CLASS 6	Buses	% OF TOTAL	73.2%	15.2%	8.2%	3.5%	0.0%	0.0%	100.0%

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, March 24, 2026
JOB #: SC5877
CITY: Perris
LOCATION: CLASS1 Green Bee Dwy east of Seaton Ave.TU

AM TIME	OUT 1	2	3	4	5	6	TOTAL	PM Time	OUT 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	1	1	0	0	0	0	2
0:15	0	0	0	0	0	0	0	12:15	1	0	0	0	0	0	1
0:30	0	0	0	0	0	0	0	12:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	12:45	0	0	2	0	0	0	2
1:00	0	0	0	0	0	0	0	13:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	13:15	1	0	0	0	0	0	1
1:30	0	0	0	0	0	0	0	13:30	0	0	0	1	0	0	1
1:45	0	0	0	0	0	0	0	13:45	2	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	14:00	1	0	0	0	0	0	1
2:15	0	0	0	1	0	0	1	14:15	1	1	0	0	0	0	2
2:30	0	0	0	0	0	0	0	14:30	2	0	0	0	0	0	2
2:45	0	0	0	0	0	0	0	14:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	15:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	15:15	3	0	0	0	0	0	3
3:30	0	0	2	1	0	0	3	15:30	8	1	0	0	0	0	9
3:45	0	0	0	0	0	0	0	15:45	7	0	0	0	0	0	7
4:00	1	2	0	0	0	0	3	16:00	2	0	0	0	0	0	2
4:15	1	0	0	0	0	0	1	16:15	1	2	0	0	0	0	3
4:30	0	0	2	0	0	0	2	16:30	5	0	0	0	0	0	5
4:45	1	0	0	0	0	0	1	16:45	5	0	0	0	0	0	5
5:00	0	1	0	0	0	0	1	17:00	5	0	0	0	0	0	5
5:15	1	2	3	0	0	0	6	17:15	1	0	0	0	0	0	1
5:30	0	1	0	0	0	0	1	17:30	6	0	0	0	0	0	6
5:45	0	0	0	1	0	0	1	17:45	2	1	0	0	0	0	3
6:00	0	2	1	0	0	0	3	18:00	0	0	0	0	0	0	0
6:15	1	1	0	0	0	0	2	18:15	1	0	0	0	0	0	1
6:30	0	0	0	0	0	0	0	18:30	0	0	0	0	0	0	0
6:45	1	0	0	0	0	0	1	18:45	0	0	0	0	0	0	0
7:00	1	0	0	0	0	0	1	19:00	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	19:15	0	0	0	0	0	0	0
7:30	1	0	0	0	0	0	1	19:30	0	0	0	0	0	0	0
7:45	1	0	0	0	0	0	1	19:45	2	0	0	0	0	0	2
8:00	0	0	0	0	0	0	0	20:00	0	0	0	0	0	0	0
8:15	0	2	0	0	0	0	2	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	1	0	0	0	0	0	1	20:45	0	0	0	0	0	0	0
9:00	1	0	0	0	0	0	1	21:00	0	0	0	0	0	0	0
9:15	2	1	0	0	0	0	3	21:15	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	21:30	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	21:45	0	0	0	0	0	0	0
10:00	1	0	0	0	0	0	1	22:00	0	0	0	0	0	0	0
10:15	1	0	0	0	0	0	1	22:15	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	22:30	0	0	0	0	0	0	0
10:45	1	0	0	0	0	0	1	22:45	0	0	0	0	0	0	0
11:00	2	0	0	0	0	0	2	23:00	0	0	0	0	0	0	0
11:15	2	0	0	0	0	0	2	23:15	1	0	0	0	0	0	1
11:30	2	0	0	0	0	0	2	23:30	0	0	0	0	0	0	0
11:45	1	0	0	0	0	0	1	23:45	1	0	0	0	0	0	1
TOTAL	23	12	8	3	0	0	46	TOTAL	59	6	2	1	0	0	68

AM PEAK HOUR	5:15 AM
AM PEAK VOLUME	11

PM PEAK HOUR	3:30 PM
PM PEAK VOLUME	21

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

	1	2	3	4	5	6	TOTAL
TOTAL: AM+PM	82	18	10	4	0	0	114
% OF TOTAL	71.9%	15.8%	8.8%	3.5%	0.0%	0.0%	100.0%

21126

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, March 24, 2026 **CITY:** Perris

JOB #: SC5877 **LOCATION:** CLASS1 Green Bee Dwy east of Seaton Ave.TU

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	3	1	0	0	0	0	4
0:15	0	0	0	0	0	0	0	12:15	4	0	0	0	0	0	4
0:30	0	0	0	0	0	0	0	12:30	1	0	1	0	0	0	2
0:45	0	0	0	0	0	0	0	12:45	0	0	3	1	0	0	4
1:00	0	0	0	0	0	0	0	13:00	1	0	0	0	0	0	1
1:15	0	0	0	0	0	0	0	13:15	1	0	0	1	0	0	2
1:30	0	0	1	0	0	0	1	13:30	0	1	1	1	0	0	3
1:45	0	0	0	0	0	0	0	13:45	2	1	0	0	0	0	3
2:00	0	0	0	0	0	0	0	14:00	3	2	0	0	0	0	5
2:15	0	0	0	1	0	0	1	14:15	2	1	1	0	0	0	4
2:30	0	0	0	0	0	0	0	14:30	2	0	0	0	0	0	2
2:45	0	0	0	0	0	0	0	14:45	0	1	0	0	0	0	1
3:00	1	0	0	0	0	0	1	15:00	0	2	1	0	0	0	3
3:15	4	0	0	0	0	0	4	15:15	4	2	0	1	0	0	7
3:30	3	0	2	1	0	0	6	15:30	10	1	0	0	0	0	11
3:45	2	0	0	0	0	0	2	15:45	7	0	1	0	0	0	8
4:00	4	2	0	0	0	0	6	16:00	3	0	0	0	0	0	3
4:15	2	0	0	0	0	0	2	16:15	1	2	0	0	0	0	3
4:30	1	0	2	0	0	0	3	16:30	5	1	0	0	0	0	6
4:45	4	0	0	0	0	0	4	16:45	5	0	1	0	0	0	6
5:00	2	1	0	0	0	0	3	17:00	5	0	1	1	0	0	7
5:15	1	2	3	0	0	0	6	17:15	2	1	0	0	0	0	3
5:30	3	1	0	0	0	0	4	17:30	6	0	0	0	0	0	6
5:45	2	1	0	1	0	0	4	17:45	2	2	0	0	0	0	4
6:00	1	3	1	0	0	0	5	18:00	0	0	0	0	0	0	0
6:15	4	1	0	0	0	0	5	18:15	1	0	0	0	0	0	1
6:30	0	0	0	0	0	0	0	18:30	0	0	0	0	0	0	0
6:45	10	1	0	0	0	0	11	18:45	0	0	0	0	0	0	0
7:00	4	0	0	0	0	0	4	19:00	0	0	0	0	0	0	0
7:15	5	0	0	0	0	0	5	19:15	0	0	0	0	0	0	0
7:30	2	0	0	0	0	0	2	19:30	0	0	0	0	0	0	0
7:45	8	0	0	0	0	0	8	19:45	3	0	0	0	0	0	3
8:00	1	0	0	0	0	0	1	20:00	0	0	0	0	0	0	0
8:15	0	2	0	0	0	0	2	20:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	2	0	0	0	0	0	2	20:45	0	0	0	0	0	0	0
9:00	3	1	0	0	0	0	4	21:00	0	0	0	0	0	0	0
9:15	3	1	0	0	0	0	4	21:15	0	0	0	0	0	0	0
9:30	1	0	0	0	0	0	1	21:30	0	0	0	0	0	0	0
9:45	2	0	0	0	0	0	2	21:45	0	0	0	0	0	0	0
10:00	2	0	0	0	0	0	2	22:00	0	0	0	0	0	0	0
10:15	1	0	0	0	0	0	1	22:15	0	0	0	0	0	0	0
10:30	2	0	0	0	0	0	2	22:30	0	0	0	0	0	0	0
10:45	1	0	0	0	0	0	1	22:45	0	0	0	0	0	0	0
11:00	3	0	0	0	0	0	3	23:00	0	0	0	0	0	0	0
11:15	3	0	0	0	0	0	3	23:15	2	0	0	0	0	0	2
11:30	2	0	0	0	0	0	2	23:30	0	0	0	0	0	0	0
11:45	3	1	0	0	0	0	4	23:45	2	0	0	0	0	0	2
TOTAL	92	17	9	3	0	0	121	**TOTAL**	77	18	10	5	0	0	110

AM PEAK HOUR	6:45 AM
AM PEAK VOLUME	22

PM PEAK HOUR	3:15 PM
PM PEAK VOLUME	29

TOTAL: AM+PM	169	35	19	8	0	0	231
% OF TOTAL	73.2%	15.2%	8.2%	3.5%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

Thursday, March 19, 2026 CITY: Perris PROJECT: SC5877

Pedestrian Counts_1 Green Bee Dwy east of Seaton Ave. **Prepared by AimTD LLC tel. 714 253 7888**

	PEDS						PEDS					
AM Period	IN		OUT				PM Period	IN		OUT		
0:00	0		0				12:00	1		0		
0:15	0		0				12:15	0		1		
0:30	0		0				12:30	2		0		
0:45	0	0	0	0			12:45	0	3	1	2	5
1:00	0		0				13:00	0		4		
1:15	0		0				13:15	2		1		
1:30	0		0				13:30	2		0		
1:45	0	0	0	0			13:45	0	4	0	5	9
2:00	0		0				14:00	0		2		
2:15	0		0				14:15	0		1		
2:30	0		0				14:30	0		0		
2:45	0	0	0	0			14:45	1	1	1	4	5
3:00	0		0				15:00	0		3		
3:15	1		0				15:15	0		2		
3:30	2		0				15:30	0		15		
3:45	1	4	0	0		4	15:45	0	0	0	20	20
4:00	0		0				16:00	0		1		
4:15	0		0				16:15	0		0		
4:30	1		0				16:30	1		1		
4:45	5	6	0	0		6	16:45	0	1	0	2	3
5:00	0		0				17:00	0		4		
5:15	0		0				17:15	0		1		
5:30	0		0				17:30	0		1		
5:45	2	2	0	0		2	17:45	0	0	0	6	6
6:00	0		0				18:00	0		0		
6:15	0		0				18:15	0		0		
6:30	0		0				18:30	0		0		
6:45	7	7	1	1		8	18:45	0	0	0	0	
7:00	8		0				19:00	0		0		
7:15	0		0				19:15	0		0		
7:30	0		0				19:30	0		0		
7:45	0	8	0	0		8	19:45	0	0	0	0	
8:00	0		0				20:00	0		0		
8:15	0		0				20:15	0		0		
8:30	1		1				20:30	0		0		
8:45	3	4	0	1		5	20:45	0	0	0	0	
9:00	1		0				21:00	0		0		
9:15	0		3				21:15	0		0		
9:30	0		1				21:30	0		0		
9:45	5	6	2	6		12	21:45	0	0	0	0	
10:00	1		1				22:00	0		0		
10:15	1		0				22:15	0		0		
10:30	0		2				22:30	0		0		
10:45	0	2	0	3		5	22:45	0	0	0	0	
11:00	0		2				23:00	0		0		
11:15	1		0				23:15	0		0		
11:30	1		0				23:30	0		0		
11:45	0	2	0	2		4	23:45	0	0	0	0	
Total Vol.		41		13		**54**			9		39	**48**

Daily Totals

IN	OUT	Combined
50	52	**102**

	AM			PM		
Split %	75.9%	24.1%	**52.9%**	18.8%	81.3%	**47.1%**
Peak Hour	6:15	9:15	**6:15**	12:30	14:45	**14:45**
Volume	15	7	**16**	4	21	**22**
P.H.F.	0.47	0.58	**0.50**	0.25	0.35	**0.37**

cs@aimtd.com Tell. 714 253 7888

Tuesday, March 24, 2026 | CITY: Perris | PROJECT: SC5877

Pedestrian Counts_1 Green Bee Dwy east of Seaton Ave. | **Prepared by AimTD LLC tel. 714 253 7888**

	PEDS						PEDS					
AM Period	IN		OUT				PM Period	IN		OUT		
0:00	0		0				12:00	0		1		
0:15	0		0				12:15	2		1		
0:30	0		0				12:30	0		0		
0:45	0	0	0	0			12:45	0	2	0	2	4
1:00	0		0				13:00	0		4		
1:15	0		0				13:15	2		0		
1:30	0		0				13:30	0		0		
1:45	0	0	0	0			13:45	0	2	0	4	6
2:00	0		0				14:00	0		2		
2:15	0		0				14:15	0		0		
2:30	0		0				14:30	0		3		
2:45	0	0	0	0			14:45	0	0	0	5	5
3:00	0		0				15:00	0		2		
3:15	0		0				15:15	0		1		
3:30	1		0				15:30	1		13		
3:45	0	1	0	0		1	15:45	0	1	0	16	17
4:00	0		0				16:00	0		0		
4:15	1		0				16:15	0		0		
4:30	0		0				16:30	0		1		
4:45	5	6	0	0		6	16:45	0	0	3	4	4
5:00	3		0				17:00	0		1		
5:15	0		0				17:15	0		1		
5:30	4		1				17:30	0		2		
5:45	2	9	0	1		10	17:45	0	0	0	4	4
6:00	0		0				18:00	0		0		
6:15	0		0				18:15	0		0		
6:30	2		0				18:30	0		0		
6:45	10	12	0	0		12	18:45	0	0	0	0	
7:00	2		0				19:00	0		0		
7:15	0		0				19:15	0		0		
7:30	0		0				19:30	0		0		
7:45	0	2	0	0		2	19:45	0	0	0	0	
8:00	0		0				20:00	0		0		
8:15	0		0				20:15	0		0		
8:30	0		0				20:30	0		0		
8:45	2	2	0	0		2	20:45	0	0	0	0	
9:00	1		3				21:00	0		0		
9:15	3		0				21:15	0		0		
9:30	0		3				21:30	0		0		
9:45	3	7	0	6		13	21:45	0	0	0	0	
10:00	0		1				22:00	0		0		
10:15	1		0				22:15	0		0		
10:30	0		1				22:30	0		0		
10:45	0	1	0	2		3	22:45	0	0	0	0	
11:00	1		3				23:00	0		0		
11:15	2		0				23:15	0		0		
11:30	0		0				23:30	0		0		
11:45	0	3	0	3		6	23:45	0	0	0	0	
Total Vol.		43		12		**55**			5		35	**40**

Daily Totals		
IN	OUT	**Combined**
48	47	**95**

	AM			**PM**		
Split %	78.2%	21.8%	**57.9%**	12.5%	87.5%	**42.1%**
Peak Hour	6:15	8:45	**6:15**	12:00	14:45	**14:45**
Volume	14	6	**14**	2	16	**17**
P.H.F.	0.35	0.50	**0.35**	0.25	0.31	**0.30**

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APPENDIX D

LEVEL OF SERVICE WORKSHEETS

EXISTING

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E AM.vistro
Report File: E:\...\E AM.pdf

Scenario 1 Existing AM Peak Hour
7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	SB Thru	0.462	11.9	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.004	10.5	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.082	32.0	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	46	4	86	1	4	3	8	662	31	130	1047	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	4	86	1	4	3	8	662	31	130	1047	0
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	1	23	0	1	1	2	175	8	34	276	0
Total Analysis Volume [veh/h]	49	4	91	1	4	3	8	699	33	137	1106	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	12	0	11	19	0	13	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	1	1	39	39	7	45	45
g / C, Green / Cycle	0.09	0.09	0.02	0.01	0.56	0.56	0.10	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.03	0.06	0.00	0.00	0.19	0.19	0.08	0.29	0.29
s, saturation flow rate [veh/h]	1816	1615	1772	1810	1900	1870	1810	1900	1900
c, Capacity [veh/h]	172	153	28	28	1066	1049	183	1228	1228
d1, Uniform Delay [s]	29.64	30.50	34.17	34.18	8.40	8.40	30.69	6.19	6.19
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.01	3.68	5.66	5.48	0.89	0.91	6.01	1.19	1.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.60	0.29	0.29	0.35	0.35	0.75	0.45	0.45
d, Delay for Lane Group [s/veh]	30.65	34.18	39.83	39.66	9.29	9.31	36.70	7.38	7.38
Lane Group LOS	C	C	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.83	1.54	0.18	0.17	2.43	2.40	2.34	2.80	2.80
50th-Percentile Queue Length [ft/ln]	20.72	38.38	4.40	4.16	60.70	59.91	58.52	70.07	70.07
95th-Percentile Queue Length [veh/ln]	1.49	2.76	0.32	0.30	4.37	4.31	4.21	5.04	5.04
95th-Percentile Queue Length [ft/ln]	37.29	69.08	7.93	7.48	109.26	107.84	105.34	126.12	126.12

Movement, Approach, & Intersection Results

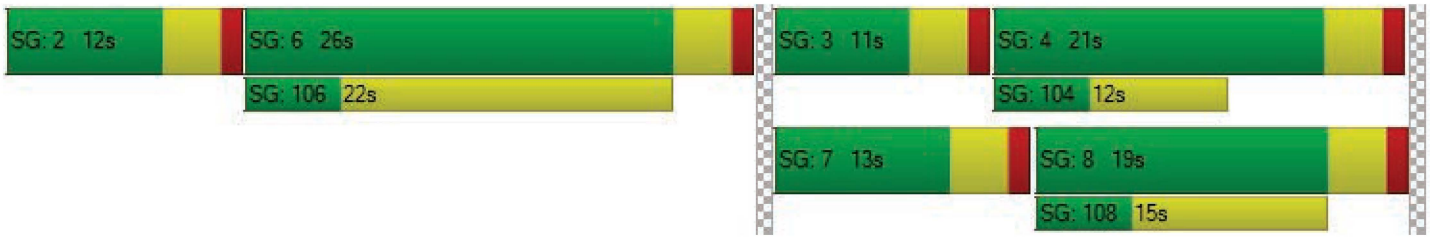
d_M, Delay for Movement [s/veh]	30.65	30.65	34.18	39.83	39.83	39.83	39.66	9.30	9.31	36.70	7.38	7.38
Movement LOS	C	C	C	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	32.88			39.83			9.63			10.61		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	11.88											
Intersection LOS	B											
Intersection V/C	0.462											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.63	26.63	0.00	26.63
l_p,int, Pedestrian LOS Score for Intersectio	2.067	1.712	0.000	2.950
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	628	228	428	485
d_b, Bicycle Delay [s]	16.50	27.51	21.66	20.11
l_b,int, Bicycle LOS Score for Intersection	1.797	1.573	2.170	2.585
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	151	3	6	133	3	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	151	3	6	133	3	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	1	2	37	1	2
Total Analysis Volume [veh/h]	166	3	7	146	3	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.54	0.00	10.46	9.14
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.29	1.03	1.03
d_A, Approach Delay [s/veh]	0.00		0.35		9.50	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.47					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	32.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.082

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	4	3	2	2	145	114	376	20	5	290	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	4	3	2	2	145	114	376	20	5	290	4
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	1	1	1	38	30	99	5	1	76	1
Total Analysis Volume [veh/h]	12	4	3	2	2	152	119	394	21	5	304	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.02	0.00	0.01	0.01	0.21	0.09	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	32.04	23.27	12.84	24.22	22.64	11.37	7.99	0.00	0.00	8.12	0.00	0.00
Movement LOS	D	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.35	0.35	0.35	0.86	0.86	0.86	0.21	0.21	0.21	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	8.63	8.63	8.63	21.45	21.45	21.45	5.36	5.36	5.36	0.21	0.21	0.21
d_A, Approach Delay [s/veh]	27.16			11.68			1.78			0.13		
Approach LOS	D			B			A			A		
d_I, Intersection Delay [s/veh]	3.26											
Intersection LOS	D											

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E PM.vistro
Report File: E:\...\E PM.pdf

Scenario 1 Existing PM Peak Hour
7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	WB Left	0.608	15.9	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.005	10.8	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.115	47.2	E

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.608

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	97	11	121	6	16	8	21	1116	44	97	837	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	97	11	121	6	16	8	21	1116	44	97	837	16
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	3	32	2	4	2	6	295	12	26	221	4
Total Analysis Volume [veh/h]	103	12	128	6	17	8	22	1180	47	103	885	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	11	0	11	19	0	19	27	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	3	3	41	41	6	45	45
g / C, Green / Cycle	0.11	0.11	0.05	0.03	0.55	0.55	0.08	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.06	0.08	0.02	0.01	0.32	0.33	0.06	0.24	0.24
s, saturation flow rate [veh/h]	1819	1615	1801	1810	1900	1874	1810	1900	1887
c, Capacity [veh/h]	201	179	82	64	1039	1025	151	1131	1124
d1, Uniform Delay [s]	31.75	32.30	34.84	35.43	11.43	11.43	33.48	8.08	8.08
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.54	5.27	2.81	3.16	2.50	2.54	5.26	1.06	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.72	0.38	0.34	0.59	0.59	0.68	0.40	0.40
d, Delay for Lane Group [s/veh]	34.29	37.57	37.65	38.59	13.92	13.97	38.74	9.13	9.14
Lane Group LOS	C	D	D	D	B	B	D	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.01	2.38	0.61	0.42	5.86	5.81	1.90	3.07	3.06
50th-Percentile Queue Length [ft/ln]	50.29	59.46	15.22	10.50	146.61	145.14	47.41	76.87	76.42
95th-Percentile Queue Length [veh/ln]	3.62	4.28	1.10	0.76	9.84	9.76	3.41	5.53	5.50
95th-Percentile Queue Length [ft/ln]	90.51	107.04	27.40	18.90	245.90	243.92	85.33	138.37	137.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.29	34.29	37.57	37.65	37.65	37.65	38.59	13.95	13.97	38.74	9.14	9.14
Movement LOS	C	C	D	D	D	D	D	B	B	D	A	A
d_A, Approach Delay [s/veh]	36.02			37.65			14.38			12.17		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	15.87											
Intersection LOS	B											
Intersection V/C	0.608											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	0.00	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.110	1.741	0.000	3.046
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	186	399	612
d_b, Bicycle Delay [s]	18.77	30.88	24.05	18.07
l_b,int, Bicycle LOS Score for Intersection	1.961	1.611	2.590	2.389
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	191	10	11	114	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	191	10	11	114	3	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	3	3	31	1	2
Total Analysis Volume [veh/h]	210	11	12	125	3	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.66	0.00	10.76	9.41
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.50	0.50	1.19	1.19
d_A, Approach Delay [s/veh]	0.00		0.67		9.75	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.56					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	47.2
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.115

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	3	7	2	4	120	186	602	14	1	202	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	3	7	2	4	120	186	602	14	1	202	3
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	2	1	1	31	47	154	4	0	52	1
Total Analysis Volume [veh/h]	11	3	7	2	4	122	190	614	14	1	206	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.02	0.01	0.02	0.03	0.15	0.14	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	47.15	34.43	16.82	35.86	31.37	10.54	7.86	0.00	0.00	8.74	0.00	0.00
Movement LOS	E	D	C	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.51	0.51	0.51	0.70	0.70	0.70	0.36	0.36	0.36	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	12.81	12.81	12.81	17.41	17.41	17.41	8.88	8.88	8.88	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	35.23			11.59			1.83			0.04		
Approach LOS	E			B			A			A		
d_I, Intersection Delay [s/veh]	3.17											
Intersection LOS	E											

EXISTING PLUS AMBIENT GROWTH

Green Bee Contractor Yard (PLN24-05264)

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Scenario 2 Existing Plus Ambient Growth AM Peak Hour
7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	SB Thru	0.479	12.1	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.005	10.6	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.091	35.0	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.479

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	46	4	86	1	4	3	8	662	31	130	1047	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	4	89	1	4	3	8	689	32	135	1089	0
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	1	23	0	1	1	2	182	8	36	287	0
Total Analysis Volume [veh/h]	51	4	94	1	4	3	8	728	34	143	1150	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	12	0	11	19	0	13	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	1	1	39	39	7	45	45
g / C, Green / Cycle	0.09	0.09	0.02	0.01	0.56	0.56	0.10	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.03	0.06	0.00	0.00	0.20	0.20	0.08	0.30	0.30
s, saturation flow rate [veh/h]	1816	1615	1772	1810	1900	1870	1810	1900	1900
c, Capacity [veh/h]	173	154	28	28	1057	1040	190	1227	1227
d1, Uniform Delay [s]	29.64	30.52	34.17	34.18	8.66	8.66	30.53	6.31	6.31
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.05	3.90	5.66	5.48	0.97	0.98	5.89	1.29	1.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.61	0.29	0.29	0.36	0.36	0.75	0.47	0.47
d, Delay for Lane Group [s/veh]	30.69	34.42	39.83	39.66	9.63	9.65	36.41	7.60	7.60
Lane Group LOS	C	C	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.86	1.59	0.18	0.17	2.60	2.57	2.43	2.98	2.98
50th-Percentile Queue Length [ft/ln]	21.52	39.82	4.40	4.16	65.05	64.20	60.77	74.48	74.48
95th-Percentile Queue Length [veh/ln]	1.55	2.87	0.32	0.30	4.68	4.62	4.38	5.36	5.36
95th-Percentile Queue Length [ft/ln]	38.73	71.67	7.93	7.48	117.10	115.57	109.39	134.07	134.07

Movement, Approach, & Intersection Results

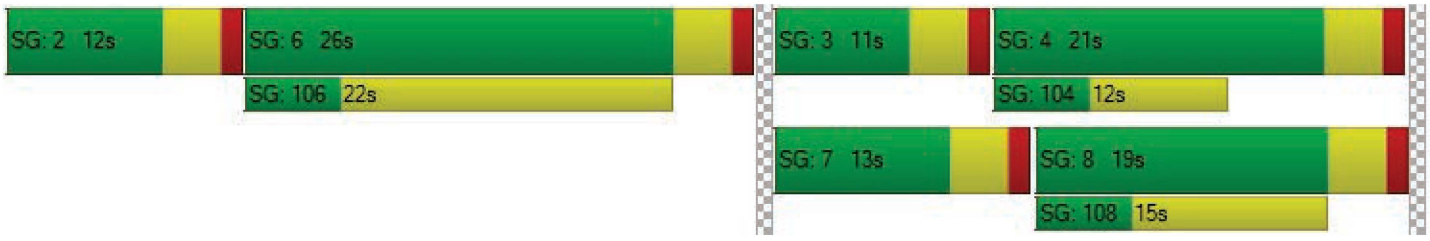
d_M, Delay for Movement [s/veh]	30.69	30.69	34.42	39.83	39.83	39.83	39.66	9.64	9.65	36.41	7.60	7.60
Movement LOS	C	C	C	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	33.04			39.83			9.95			10.78		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	12.09											
Intersection LOS	B											
Intersection V/C	0.479											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.63	26.63	0.00	26.63
l_p,int, Pedestrian LOS Score for Intersectio	2.072	1.712	0.000	2.976
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	628	228	428	485
d_b, Bicycle Delay [s]	16.50	27.51	21.66	20.11
l_b,int, Bicycle LOS Score for Intersection	1.805	1.573	2.195	2.626
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	151	3	6	133	3	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	157	3	6	138	3	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	1	2	38	1	2
Total Analysis Volume [veh/h]	173	3	7	152	3	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.56	0.00	10.55	9.18
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.29	1.04	1.04
d_A, Approach Delay [s/veh]	0.00		0.33		9.55	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	35.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.091

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	4	3	2	2	145	114	376	20	5	290	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	4	3	2	2	151	119	391	21	5	302	4
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	1	1	1	40	31	102	6	1	79	1
Total Analysis Volume [veh/h]	12	4	3	2	2	158	125	410	22	5	317	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.02	0.00	0.01	0.01	0.22	0.10	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	35.00	24.84	13.43	25.78	23.91	11.60	8.03	0.00	0.00	8.17	0.00	0.00
Movement LOS	D	C	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.38	0.38	0.38	0.92	0.92	0.92	0.23	0.23	0.23	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	9.49	9.49	9.49	23.07	23.07	23.07	5.65	5.65	5.65	0.21	0.21	0.21
d_A, Approach Delay [s/veh]	29.45			11.92			1.80			0.13		
Approach LOS	D			B			A			A		
d_I, Intersection Delay [s/veh]	3.32											
Intersection LOS	D											

Green Bee Contractor Yard (PLN24-05264)

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Scenario 2 Existing Plus Ambient Growth PM Peak Hour
7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	WB Left	0.632	16.4	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.005	10.9	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.129	52.9	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	97	11	121	6	16	8	21	1116	44	97	837	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	101	11	126	6	17	8	22	1161	46	101	871	17
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	3	33	2	4	2	6	307	12	27	230	4
Total Analysis Volume [veh/h]	107	12	133	6	18	8	23	1227	49	107	921	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	11	0	11	19	0	19	27	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	3	3	41	41	6	44	44
g / C, Green / Cycle	0.11	0.11	0.05	0.04	0.54	0.54	0.08	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.02	0.01	0.34	0.34	0.06	0.25	0.25
s, saturation flow rate [veh/h]	1818	1615	1804	1810	1900	1874	1810	1900	1887
c, Capacity [veh/h]	207	184	84	66	1029	1016	153	1121	1113
d1, Uniform Delay [s]	31.59	32.17	34.78	35.36	11.92	11.93	33.49	8.41	8.41
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.50	5.27	2.78	3.11	2.85	2.90	5.66	1.16	1.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.72	0.38	0.35	0.62	0.62	0.70	0.42	0.42
d, Delay for Lane Group [s/veh]	34.08	37.44	37.57	38.47	14.77	14.83	39.15	9.57	9.57
Lane Group LOS	C	D	D	D	B	B	D	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.07	2.47	0.63	0.44	6.37	6.31	1.98	3.33	3.31
50th-Percentile Queue Length [ft/ln]	51.84	61.66	15.67	10.93	159.29	157.81	49.57	83.16	82.66
95th-Percentile Queue Length [veh/ln]	3.73	4.44	1.13	0.79	10.51	10.43	3.57	5.99	5.95
95th-Percentile Queue Length [ft/ln]	93.32	110.99	28.21	19.67	262.79	260.82	89.22	149.68	148.79

Movement, Approach, & Intersection Results

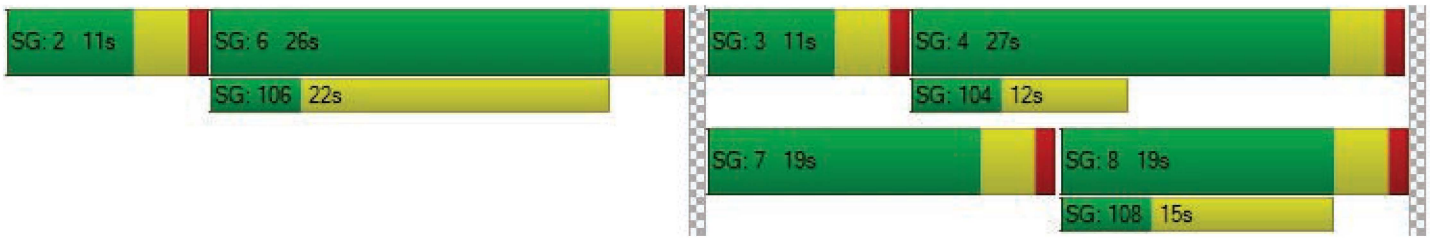
d_M, Delay for Movement [s/veh]	34.08	34.08	37.44	37.57	37.57	37.57	38.47	14.80	14.83	39.15	9.57	9.57
Movement LOS	C	C	D	D	D	D	D	B	B	D	A	A
d_A, Approach Delay [s/veh]	35.86			37.57			15.22			12.60		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	16.42											
Intersection LOS	B											
Intersection V/C	0.632											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	0.00	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.117	1.742	0.000	3.076
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	186	399	612
d_b, Bicycle Delay [s]	18.77	30.88	24.05	18.07
l_b,int, Bicycle LOS Score for Intersection	1.975	1.612	2.631	2.423
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	191	10	11	114	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	10	11	119	3	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	3	3	33	1	2
Total Analysis Volume [veh/h]	219	11	12	131	3	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.68	0.00	10.88	9.47
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.50	0.50	1.20	1.20
d_A, Approach Delay [s/veh]	0.00		0.64		9.82	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.55					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	52.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.129

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	3	7	2	4	120	186	602	14	1	202	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	3	7	2	4	125	194	626	15	1	210	3
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	2	1	1	32	49	160	4	0	54	1
Total Analysis Volume [veh/h]	11	3	7	2	4	128	198	639	15	1	214	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.02	0.01	0.02	0.03	0.15	0.15	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	52.88	37.85	18.20	39.11	33.84	10.72	7.89	0.00	0.00	8.82	0.00	0.00
Movement LOS	F	E	C	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.57	0.57	0.57	0.76	0.76	0.76	0.37	0.37	0.37	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	14.36	14.36	14.36	18.89	18.89	18.89	9.30	9.30	9.30	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	39.18			11.84			1.83			0.04		
Approach LOS	E			B			A			A		
d_I, Intersection Delay [s/veh]	3.25											
Intersection LOS	F											

EXISTING PLUS AMBIENT GROWTH WITH PROJECT

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E AM.vistro

Scenario 3 Existing Plus Ambient Growth With Project AM Peak Hour

Report File: E:\...\EAP AM.pdf

7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	SB Thru	0.480	12.3	B
2	Sherman Rd (NS) at Project Dwy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.022	10.7	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.005	10.6	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.094	36.3	E

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	46	4	86	1	4	3	8	662	31	130	1047	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	1	0	0	0	0	0	16	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	4	90	1	4	3	8	689	48	139	1089	0
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	1	24	0	1	1	2	182	13	37	287	0
Total Analysis Volume [veh/h]	63	4	95	1	4	3	8	728	51	147	1150	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	12	0	11	19	0	13	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	1	1	39	39	7	45	45
g / C, Green / Cycle	0.10	0.10	0.02	0.01	0.55	0.55	0.11	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.00	0.00	0.21	0.21	0.08	0.30	0.30
s, saturation flow rate [veh/h]	1815	1615	1772	1810	1900	1857	1810	1900	1900
c, Capacity [veh/h]	175	156	28	28	1050	1026	195	1225	1225
d1, Uniform Delay [s]	29.77	30.46	34.17	34.18	8.87	8.87	30.42	6.35	6.35
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.38	3.84	5.66	5.48	1.03	1.05	5.81	1.29	1.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.61	0.29	0.29	0.38	0.38	0.75	0.47	0.47
d, Delay for Lane Group [s/veh]	31.14	34.30	39.83	39.66	9.89	9.92	36.23	7.64	7.64
Lane Group LOS	C	C	D	D	A	A	D	A	A
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.06	1.61	0.18	0.17	2.73	2.68	2.49	3.00	3.00
50th-Percentile Queue Length [ft/ln]	26.48	40.14	4.40	4.16	68.25	66.94	62.27	75.01	75.01
95th-Percentile Queue Length [veh/ln]	1.91	2.89	0.32	0.30	4.91	4.82	4.48	5.40	5.40
95th-Percentile Queue Length [ft/ln]	47.67	72.26	7.93	7.48	122.85	120.49	112.09	135.01	135.01

Movement, Approach, & Intersection Results

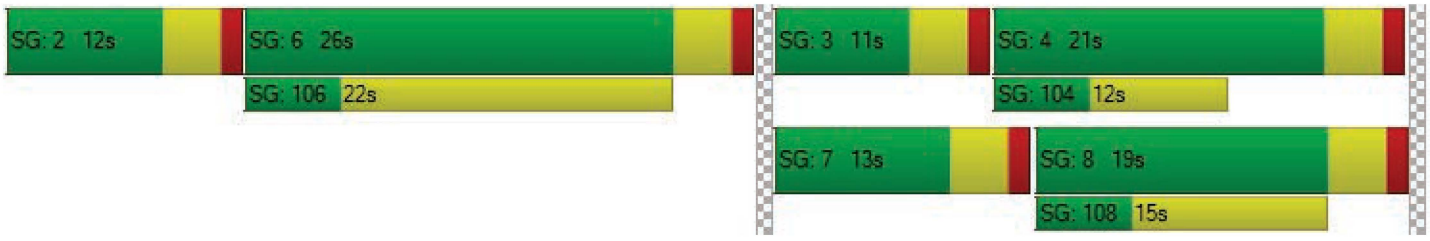
d_M, Delay for Movement [s/veh]	31.14	31.14	34.30	39.83	39.83	39.83	39.66	9.91	9.92	36.23	7.64	7.64
Movement LOS	C	C	C	D	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	32.99			39.83			10.21			10.88		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	12.34											
Intersection LOS	B											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.63	26.63	0.00	26.63
l_p,int, Pedestrian LOS Score for Intersectio	2.087	1.712	0.000	2.978
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	628	228	428	485
d_b, Bicycle Delay [s]	16.50	27.51	21.66	20.11
l_b,int, Bicycle LOS Score for Intersection	1.827	1.573	2.209	2.630
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Sherman Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	158	139	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	20	13	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	164	145	20	13	2
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	43	38	5	3	1
Total Analysis Volume [veh/h]	9	173	153	21	14	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	7.55	0.00	0.00	0.00	10.73	9.19
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.38	0.38	0.00	0.00	1.85	1.85
d_A, Approach Delay [s/veh]	0.37		0.00		10.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.64					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	151	3	6	133	3	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	2	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	3	6	140	3	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	1	2	38	1	2
Total Analysis Volume [veh/h]	182	3	7	154	3	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.58	0.00	10.63	9.23
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.29	1.06	1.06
d_A, Approach Delay [s/veh]	0.00		0.33		9.61	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.44					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	36.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.094

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	4	3	2	2	145	114	376	20	5	290	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	0	2	7	0	0	0	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	5	3	2	2	153	126	391	21	5	302	5
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	1	1	1	40	33	102	6	1	79	1
Total Analysis Volume [veh/h]	12	5	3	2	2	160	132	410	22	5	317	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.02	0.00	0.01	0.01	0.22	0.11	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	36.33	25.66	13.75	26.53	24.44	11.64	8.04	0.00	0.00	8.17	0.00	0.00
Movement LOS	E	D	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.41	0.41	0.41	0.94	0.94	0.94	0.24	0.24	0.24	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	10.30	10.30	10.30	23.51	23.51	23.51	5.99	5.99	5.99	0.21	0.21	0.21
d_A, Approach Delay [s/veh]	30.28			11.97			1.88			0.12		
Approach LOS	D			B			A			A		
d_I, Intersection Delay [s/veh]	3.42											
Intersection LOS	E											

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E PM.vistro

Scenario 3 Existing Plus Ambient Growth With Project PM Peak Hour

Report File: E:\...\EAP PM.pdf

7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	WB Left	0.644	16.9	B
2	Sherman Rd (NS) at Project Dwy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.031	10.9	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.005	11.0	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.133	54.6	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.644

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	97	11	121	6	16	8	21	1116	44	97	837	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	0	5	0	0	0	0	0	16	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	115	11	131	6	17	8	22	1161	62	102	871	17
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	3	35	2	4	2	6	307	16	27	230	4
Total Analysis Volume [veh/h]	122	12	138	6	18	8	23	1227	66	108	921	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	11	0	11	19	0	19	27	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	3	3	41	41	6	44	44
g / C, Green / Cycle	0.12	0.12	0.05	0.04	0.54	0.54	0.08	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.07	0.09	0.02	0.01	0.34	0.34	0.06	0.25	0.25
s, saturation flow rate [veh/h]	1817	1615	1804	1810	1900	1866	1810	1900	1887
c, Capacity [veh/h]	214	190	84	66	1022	1004	154	1114	1106
d1, Uniform Delay [s]	31.60	32.01	34.78	35.36	12.22	12.24	33.49	8.56	8.56
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.99	5.20	2.78	3.11	3.04	3.11	5.76	1.18	1.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.73	0.38	0.35	0.64	0.64	0.70	0.42	0.42
d, Delay for Lane Group [s/veh]	34.59	37.20	37.57	38.47	15.26	15.35	39.26	9.74	9.75
Lane Group LOS	C	D	D	D	B	B	D	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.36	2.55	0.63	0.44	6.63	6.55	2.00	3.38	3.36
50th-Percentile Queue Length [ft/ln]	58.98	63.74	15.67	10.93	165.78	163.81	50.11	84.47	83.97
95th-Percentile Queue Length [veh/ln]	4.25	4.59	1.13	0.79	10.85	10.75	3.61	6.08	6.05
95th-Percentile Queue Length [ft/ln]	106.17	114.74	28.21	19.67	271.36	268.76	90.20	152.05	151.14

Movement, Approach, & Intersection Results

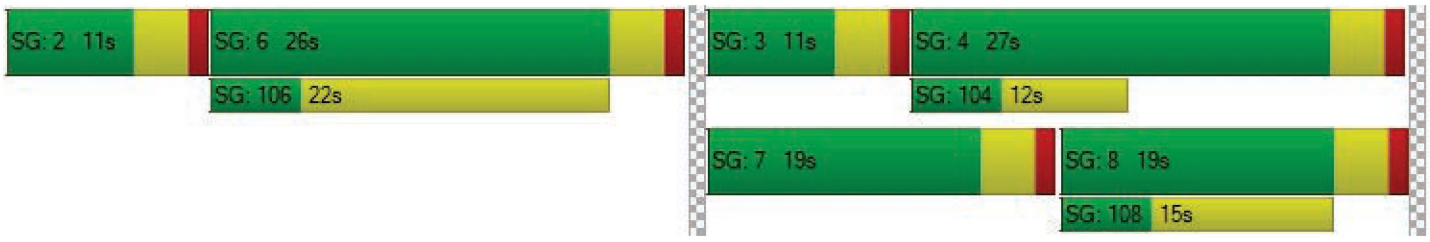
d_M, Delay for Movement [s/veh]	34.59	34.59	37.20	37.57	37.57	37.57	38.47	15.30	15.35	39.26	9.74	9.75
Movement LOS	C	C	D	D	D	D	D	B	B	D	A	A
d_A, Approach Delay [s/veh]	35.92			37.57			15.71			12.79		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	16.89											
Intersection LOS	B											
Intersection V/C	0.644											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	0.00	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.134	1.742	0.000	3.078
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	186	399	612
d_b, Bicycle Delay [s]	18.77	30.88	24.05	18.07
l_b,int, Bicycle LOS Score for Intersection	2.008	1.612	2.645	2.423
Bicycle LOS	B	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Sherman Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.031

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	199	125	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	17	19	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	207	130	17	19	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	54	34	4	5	3
Total Analysis Volume [veh/h]	1	218	137	18	20	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.03	0.01
d_M, Delay for Movement [s/veh]	7.51	0.00	0.00	0.00	10.88	9.21
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.04	0.04	0.00	0.00	3.50	3.50
d_A, Approach Delay [s/veh]	0.03		0.00		10.25	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	191	10	11	114	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	11	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	200	10	11	130	3	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	3	3	36	1	2
Total Analysis Volume [veh/h]	220	11	12	143	3	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.68	0.00	10.98	9.47
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.50	0.50	1.21	1.21
d_A, Approach Delay [s/veh]	0.00		0.59		9.85	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	54.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.133

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	3	7	2	4	120	186	602	14	1	202	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	1	1	9	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	3	7	3	5	134	195	626	15	1	210	3
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	2	1	1	34	50	160	4	0	54	1
Total Analysis Volume [veh/h]	11	3	7	3	5	137	199	639	15	1	214	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.02	0.01	0.03	0.04	0.17	0.15	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	54.56	38.28	18.52	39.59	34.29	11.05	7.89	0.00	0.00	8.82	0.00	0.00
Movement LOS	F	E	C	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.59	0.59	0.59	0.89	0.89	0.89	0.37	0.37	0.37	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	14.77	14.77	14.77	22.19	22.19	22.19	9.35	9.35	9.35	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	40.22			12.44			1.84			0.04		
Approach LOS	E			B			A			A		
d_I, Intersection Delay [s/veh]	3.42											
Intersection LOS	F											

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E PM.vistro

Scenario 5 Existing Plus Ambient Growth With Project PM Peak Hour - With Improvements

Report File: E:\...\EAPI PM (Alt).pdf

9/11/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	SB Left	0.030	42.6	E

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	42.6
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	14	7	2	4	120	186	602	14	1	202	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	1	1	9	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	15	7	3	5	134	195	626	15	1	210	3
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	4	2	1	1	34	50	160	4	0	54	1
Total Analysis Volume [veh/h]	11	15	7	3	5	137	199	639	15	1	214	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.11	0.01	0.03	0.04	0.17	0.15	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	35.43	15.67	42.59	34.33	11.09	7.89	0.00	0.00	8.82	0.00	0.00
Movement LOS		E	C	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.43	0.43	0.90	0.90	0.90	0.37	0.37	0.37	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	10.83	10.83	22.49	22.49	22.49	9.35	9.35	9.35	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	29.14			12.55			1.84			0.04		
Approach LOS	D			B			A			A		
d_I, Intersection Delay [s/veh]	3.26											
Intersection LOS	E											

EXISTING PLUS AMBIENT GROWTH & CUMULATIVE TRAFFIC WITH PROJECT

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E AM.vistro

Scenario 4 Existing Plus Ambient Growth & Cumulative Traffic With Project AM Peak Hour

Report File: E:\...\EAPC AM.pdf

7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	SB Thru	0.624	15.0	B
2	Sherman Rd (NS) at Project Dwy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.025	11.6	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.023	11.6	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	2.179	832.9	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	46	4	86	1	4	3	8	662	31	130	1047	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	24	0	27	0	0	0	0	336	37	43	291	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	4	116	1	4	3	8	1025	69	178	1380	0
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	31	0	1	1	2	271	18	47	364	0
Total Analysis Volume [veh/h]	76	4	122	1	4	3	8	1082	73	188	1457	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	13	0	11	25	0	11	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	1	1	40	40	10	49	49
g / C, Green / Cycle	0.10	0.10	0.01	0.01	0.54	0.54	0.13	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.00	0.00	0.31	0.31	0.10	0.38	0.38
s, saturation flow rate [veh/h]	1814	1615	1772	1810	1900	1858	1810	1900	1900
c, Capacity [veh/h]	191	170	27	28	1015	992	239	1237	1237
d1, Uniform Delay [s]	31.47	32.54	36.62	36.62	11.78	11.79	31.60	7.43	7.43
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.45	5.50	5.80	5.61	2.37	2.43	5.64	2.06	2.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.72	0.29	0.29	0.58	0.58	0.79	0.59	0.59
d, Delay for Lane Group [s/veh]	32.92	38.04	42.42	42.24	14.15	14.22	37.24	9.49	9.49
Lane Group LOS	C	D	D	D	B	B	D	A	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.36	2.28	0.19	0.18	5.63	5.53	3.38	4.80	4.80
50th-Percentile Queue Length [ft/ln]	34.01	57.11	4.69	4.45	140.80	138.24	84.53	119.96	119.96
95th-Percentile Queue Length [veh/ln]	2.45	4.11	0.34	0.32	9.52	9.39	6.09	8.39	8.39
95th-Percentile Queue Length [ft/ln]	61.22	102.79	8.45	8.00	238.10	234.65	152.15	209.78	209.78

Movement, Approach, & Intersection Results

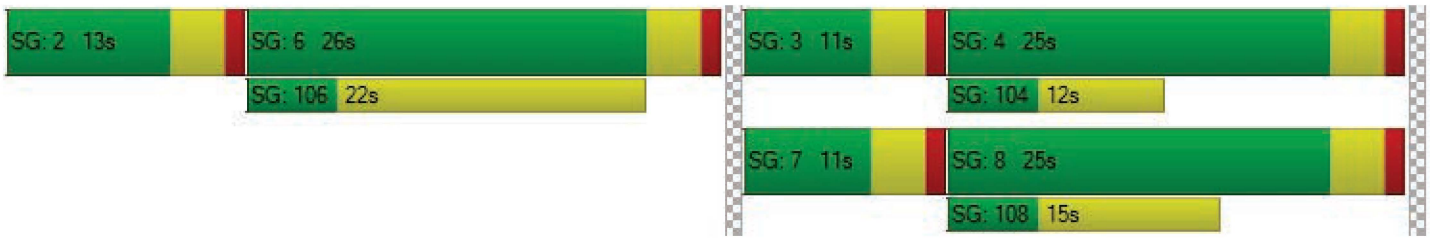
d_M, Delay for Movement [s/veh]	32.92	32.92	38.04	42.42	42.42	42.42	42.24	14.18	14.22	37.24	9.49	9.49
Movement LOS	C	C	D	D	D	D	D	B	B	D	A	A
d_A, Approach Delay [s/veh]	36.01			42.42			14.38			12.66		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	14.97											
Intersection LOS	B											
Intersection V/C	0.624											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.09	29.09	0.00	29.09
l_p,int, Pedestrian LOS Score for Intersectio	2.135	1.715	0.000	3.219
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	586	240	559	559
d_b, Bicycle Delay [s]	18.77	29.09	19.49	19.49
l_b,int, Bicycle LOS Score for Intersection	1.893	1.573	2.519	2.917
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Sherman Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	158	139	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	37	59	20	13	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	201	204	20	13	2
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	53	54	5	3	1
Total Analysis Volume [veh/h]	9	212	215	21	14	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	7.69	0.00	0.00	0.00	11.58	9.57
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.08	0.08
95th-Percentile Queue Length [ft/ln]	0.38	0.38	0.00	0.00	2.11	2.11
d_A, Approach Delay [s/veh]	0.31		0.00		11.33	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	151	3	6	133	3	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	46	8	0	61	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	203	11	6	199	12	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	3	2	55	3	2
Total Analysis Volume [veh/h]	223	12	7	219	13	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.69	0.00	11.64	9.61
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.10	0.10
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.29	0.29	2.56	2.56
d_A, Approach Delay [s/veh]	0.00		0.24		10.87	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.59					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	832.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.179

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	4	3	2	2	145	114	376	20	5	290	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	63	11	0	0	28	42	42	112	104	0	140	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	15	3	2	30	193	161	503	125	5	442	5
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	4	1	1	8	51	42	132	33	1	116	1
Total Analysis Volume [veh/h]	78	16	3	2	31	202	169	527	131	5	463	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.18	0.15	0.01	0.03	0.32	0.34	0.15	0.01	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	832.92	766.75	739.42	72.40	62.60	31.05	8.49	0.00	0.00	8.84	0.00	0.00
Movement LOS	F	F	F	F	F	D	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	10.43	10.43	10.43	4.82	4.82	4.82	0.32	0.32	0.32	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	260.67	260.67	260.67	120.46	120.46	120.46	8.10	8.10	8.10	0.21	0.21	0.21
d_A, Approach Delay [s/veh]	819.11			35.56			1.73			0.09		
Approach LOS	F			E			A			A		
d_I, Intersection Delay [s/veh]	54.71											
Intersection LOS	F											

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E PM.vistro

Scenario 4 Existing Plus Ambient Growth & Cumulative Traffic With Project PM Peak Hour

Report File: E:\...\EAPC PM.pdf

7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sherman Rd (NS) at Hwy 74 (EW)	Signalized	HCM 7th Edition	EB Left	0.807	25.7	C
2	Sherman Rd (NS) at Project Dwy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.039	12.3	B
3	Sherman Rd (NS) at Harrison Ave (EW)	Two-way stop	HCM 7th Edition	WB Left	0.033	12.8	B
4	Sherman Rd (NS) at Ethanac Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	7.498	3,766.1	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Sherman Rd (NS) at Hwy 74 (EW)

Control Type:	Signalized	Delay (sec / veh):	25.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.807

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	265.00	100.00	100.00	385.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name												
Base Volume Input [veh/h]	97	11	121	6	16	8	21	1116	44	97	837	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	68	0	0	0	0	345	34	57	348	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	138	11	194	6	17	8	22	1506	80	158	1219	17
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	3	51	2	4	2	6	398	21	42	322	4
Total Analysis Volume [veh/h]	146	12	205	6	18	8	23	1592	85	167	1289	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	120	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	11	0	45	53	0	15	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	10	0	0	10	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	C	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	4	3	57	57	12	66	66
g / C, Green / Cycle	0.15	0.15	0.04	0.03	0.54	0.54	0.11	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.09	0.13	0.02	0.01	0.44	0.45	0.09	0.34	0.35
s, saturation flow rate [veh/h]	1816	1615	1804	1810	1900	1866	1810	1900	1891
c, Capacity [veh/h]	272	241	74	60	1034	1015	205	1185	1179
d1, Uniform Delay [s]	41.67	43.58	49.21	49.78	19.64	19.79	45.58	11.36	11.37
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.97	8.09	3.87	3.91	7.05	7.51	7.72	1.86	1.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.85	0.43	0.38	0.81	0.82	0.82	0.55	0.55
d, Delay for Lane Group [s/veh]	43.64	51.67	53.09	53.69	26.68	27.30	53.30	13.22	13.24
Lane Group LOS	D	D	D	D	C	C	D	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.87	5.59	0.91	0.63	16.37	16.46	4.51	7.77	7.75
50th-Percentile Queue Length [ft/ln]	96.72	139.75	22.64	15.87	409.22	411.60	112.69	194.31	193.84
95th-Percentile Queue Length [veh/ln]	6.96	9.47	1.63	1.14	23.00	23.12	7.99	12.34	12.32
95th-Percentile Queue Length [ft/ln]	174.09	236.69	40.76	28.57	575.10	577.97	199.73	308.62	308.00

Movement, Approach, & Intersection Results

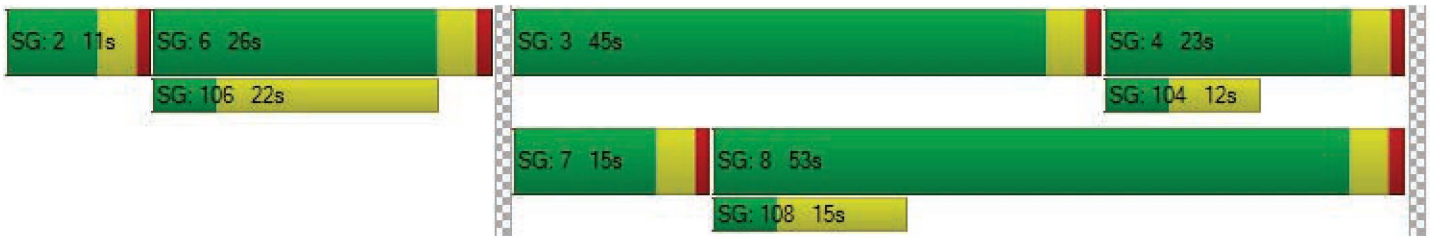
d_M, Delay for Movement [s/veh]	43.64	43.64	51.67	53.09	53.09	53.09	53.69	26.98	27.30	53.30	13.23	13.24
Movement LOS	D	D	D	D	D	D	D	C	C	D	B	B
d_A, Approach Delay [s/veh]	48.18			53.09			27.35			17.77		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	25.74											
Intersection LOS	C											
Intersection V/C	0.807											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	43.93	43.93	0.00	43.93
l_p,int, Pedestrian LOS Score for Intersectio	2.223	1.758	0.000	3.374
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	419	133	932	362
d_b, Bicycle Delay [s]	32.85	45.78	14.97	35.27
l_b,int, Bicycle LOS Score for Intersection	2.159	1.612	2.962	2.776
Bicycle LOS	B	A	C	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Sherman Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.039

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	199	125	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	83	71	17	19	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	290	201	17	19	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	76	53	4	5	3
Total Analysis Volume [veh/h]	1	305	212	18	20	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.04	0.01
d_M, Delay for Movement [s/veh]	7.67	0.00	0.00	0.00	12.34	9.71
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.04	0.04	0.00	0.00	4.23	4.23
d_A, Approach Delay [s/veh]	0.03		0.00		11.36	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.65					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Sherman Rd (NS) at Harrison Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	191	10	11	114	3	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	84	13	0	82	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	283	23	11	201	15	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	6	3	55	4	2
Total Analysis Volume [veh/h]	311	25	12	221	16	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.03	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.93	0.00	12.78	10.30
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.50	0.50	3.58	3.58
d_A, Approach Delay [s/veh]	0.00		0.41		11.89	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.66					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	3,766.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	7.498

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	11	3	7	2	4	120	186	602	14	1	202	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	83	30	0	1	21	72	67	165	65	0	146	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	33	7	3	25	197	261	791	80	1	356	3
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	8	2	1	6	50	67	202	20	0	91	1
Total Analysis Volume [veh/h]	96	34	7	3	26	201	266	807	82	1	363	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	7.50	0.71	0.02	0.19	0.57	0.29	0.22	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	3766.14	3559.68	3494.85	341.57	187.07	113.30	8.35	0.00	0.00	9.67	0.00	0.00
Movement LOS	F	F	F	F	F	F	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	17.91	17.91	17.91	10.12	10.12	10.12	0.53	0.53	0.53	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	447.77	447.77	447.77	252.97	252.97	252.97	13.25	13.25	13.25	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	3701.04			124.62			1.92			0.03		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	284.77											
Intersection LOS	F											

Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E AM.vistro

Scenario 6 Existing Plus Ambient Growth & Cumulative Traffic With Project AM Peak Hour - With Improvements

Report File: E:\...\EAPCI AM.pdf

7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	Sherman Rd (NS) at Ethanac Rd (EW)	Signalized	HCM 7th Edition	EB Left	0.709	20.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	4	3	2	2	145	114	376	20	5	290	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	63	11	0	0	28	42	42	112	104	0	140	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	15	3	2	30	193	161	503	125	5	442	5
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	4	1	1	8	51	42	132	33	1	116	1
Total Analysis Volume [veh/h]	78	16	3	2	31	202	169	527	131	5	463	5
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	0	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	0	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	16	0	0	16	0	17	33	0	0	16	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	7	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No		No	No			No	
Maximum Recall		No			No		No	No			No	
Pedestrian Recall		No			No		No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	10	10	8	37	26
g / C, Green / Cycle	0.09	0.09	0.15	0.15	0.12	0.57	0.39
(v / s)_i Volume / Saturation Flow Rate	0.05	0.00	0.02	0.13	0.09	0.36	0.25
s, saturation flow rate [veh/h]	1824	1615	1894	1615	1810	1836	1888
c, Capacity [veh/h]	163	145	291	248	218	1051	794
d1, Uniform Delay [s]	28.50	27.08	23.76	26.68	27.84	9.28	16.10
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.18	0.06	0.17	6.33	5.88	2.82	3.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.02	0.11	0.81	0.78	0.63	0.60
d, Delay for Lane Group [s/veh]	31.68	27.14	23.93	33.01	33.72	12.10	19.38
Lane Group LOS	C	C	C	C	C	B	B
Critical Lane Group	Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.45	0.04	0.42	3.20	2.66	5.08	5.40
50th-Percentile Queue Length [ft/ln]	36.14	1.04	10.41	80.08	66.50	126.94	134.88
95th-Percentile Queue Length [veh/ln]	2.60	0.08	0.75	5.77	4.79	8.77	9.20
95th-Percentile Queue Length [ft/ln]	65.06	1.88	18.73	144.15	119.71	219.32	230.12

Movement, Approach, & Intersection Results

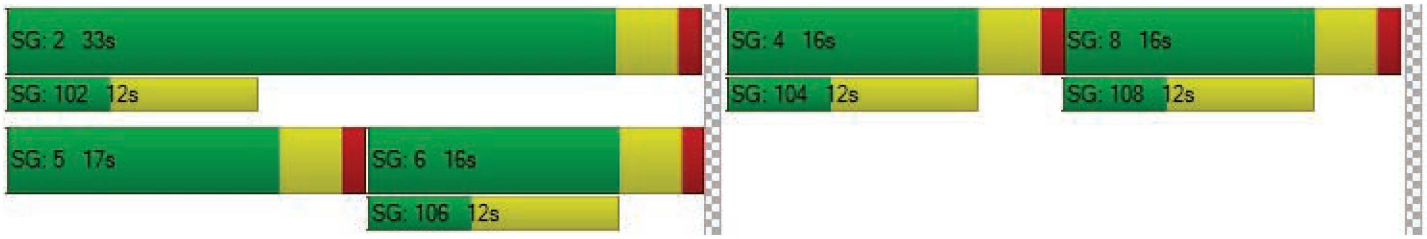
d_M, Delay for Movement [s/veh]	31.68	31.68	27.14	23.93	23.93	33.01	33.72	12.10	12.10	19.38	19.38	19.38
Movement LOS	C	C	C	C	C	C	C	B	B	B	B	B
d_A, Approach Delay [s/veh]	31.54			31.74			16.52			19.38		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	20.43											
Intersection LOS	C											
Intersection V/C	0.709											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	24.17	24.17
l_p,int, Pedestrian LOS Score for Intersectio	2.047	2.109	2.691	2.435
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	369	369	891	369
d_b, Bicycle Delay [s]	21.66	21.66	10.01	21.66
l_b,int, Bicycle LOS Score for Intersection	1.720	1.947	2.924	2.340
Bicycle LOS	A	A	C	B

Sequence

Ring 1	-	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Green Bee Contractor Yard (PLN24-05264)

Vistro File: E:\...\E PM.vistro

Scenario 6 Existing Plus Ambient Growth & Cumulative Traffic With Project PM Peak Hour - With Improvements

Report File: E:\...\EAPCI PM.pdf

7/6/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	Sherman Rd (NS) at Ethanac Rd (EW)	Signalized	HCM 7th Edition	NB Left	0.869	24.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 4: Sherman Rd (NS) at Ethanac Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.869

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	11	3	7	2	4	120	186	602	14	1	202	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	83	30	0	1	21	72	67	165	65	0	146	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	33	7	3	25	197	261	791	80	1	356	3
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	8	2	1	6	50	67	202	20	0	91	1
Total Analysis Volume [veh/h]	96	34	7	3	26	201	266	807	82	1	363	3
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	0	7	0
Maximum Green [s]	0	120	0	0	120	0	120	120	0	0	120	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	22	0	0	16	0	16	32	0	0	16	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	7	0	0	7	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No		No	No			No	
Maximum Recall		No			No		No	No			No	
Pedestrian Recall		No			No		No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	11	11	12	41	25
g / C, Green / Cycle	0.09	0.09	0.15	0.15	0.17	0.58	0.36
(v / s)_i Volume / Saturation Flow Rate	0.07	0.00	0.02	0.12	0.15	0.48	0.23
s, saturation flow rate [veh/h]	1832	1615	1890	1615	1810	1870	1614
c, Capacity [veh/h]	174	153	285	244	310	1090	624
d1, Uniform Delay [s]	30.95	28.88	25.70	28.90	28.25	11.63	18.23
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.25	0.12	0.15	6.89	6.79	6.75	4.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.05	0.10	0.82	0.86	0.82	0.59
d, Delay for Lane Group [s/veh]	37.20	29.00	25.85	35.80	35.03	18.38	22.26
Lane Group LOS	D	C	C	D	D	B	C
Critical Lane Group	Yes	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.30	0.11	0.40	3.50	4.51	9.72	4.78
50th-Percentile Queue Length [ft/ln]	57.57	2.64	10.03	87.50	112.66	243.01	119.56
95th-Percentile Queue Length [veh/ln]	4.14	0.19	0.72	6.30	7.99	14.83	8.37
95th-Percentile Queue Length [ft/ln]	103.62	4.76	18.06	157.50	199.70	370.84	209.22

Movement, Approach, & Intersection Results

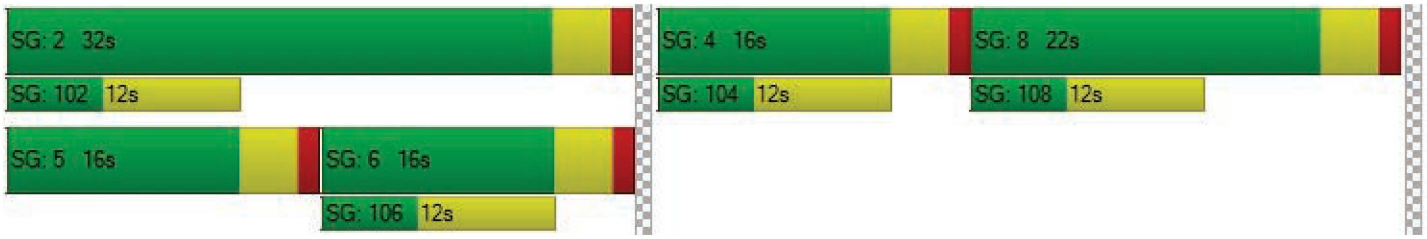
d_M, Delay for Movement [s/veh]	37.20	37.20	29.00	25.85	25.85	35.80	35.03	18.38	18.38	22.26	22.26	22.26
Movement LOS	D	D	C	C	C	D	D	B	B	C	C	C
d_A, Approach Delay [s/veh]	36.78			34.54			22.21			22.26		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	24.78											
Intersection LOS	C											
Intersection V/C	0.869											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.63	26.63	26.63	26.63
l_p,int, Pedestrian LOS Score for Intersectio	2.037	2.160	2.814	2.570
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	514	342	799	342
d_b, Bicycle Delay [s]	19.36	24.08	12.64	24.08
l_b,int, Bicycle LOS Score for Intersection	1.786	1.939	3.465	2.165
Bicycle LOS	A	A	C	B

Sequence

Ring 1	-	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX E

TRAFFIC SIGNAL WARRANT WORKSHEET

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing

Major Street Name = **Ethanac Road**

Total of Both Approaches (VPH) = **1008**

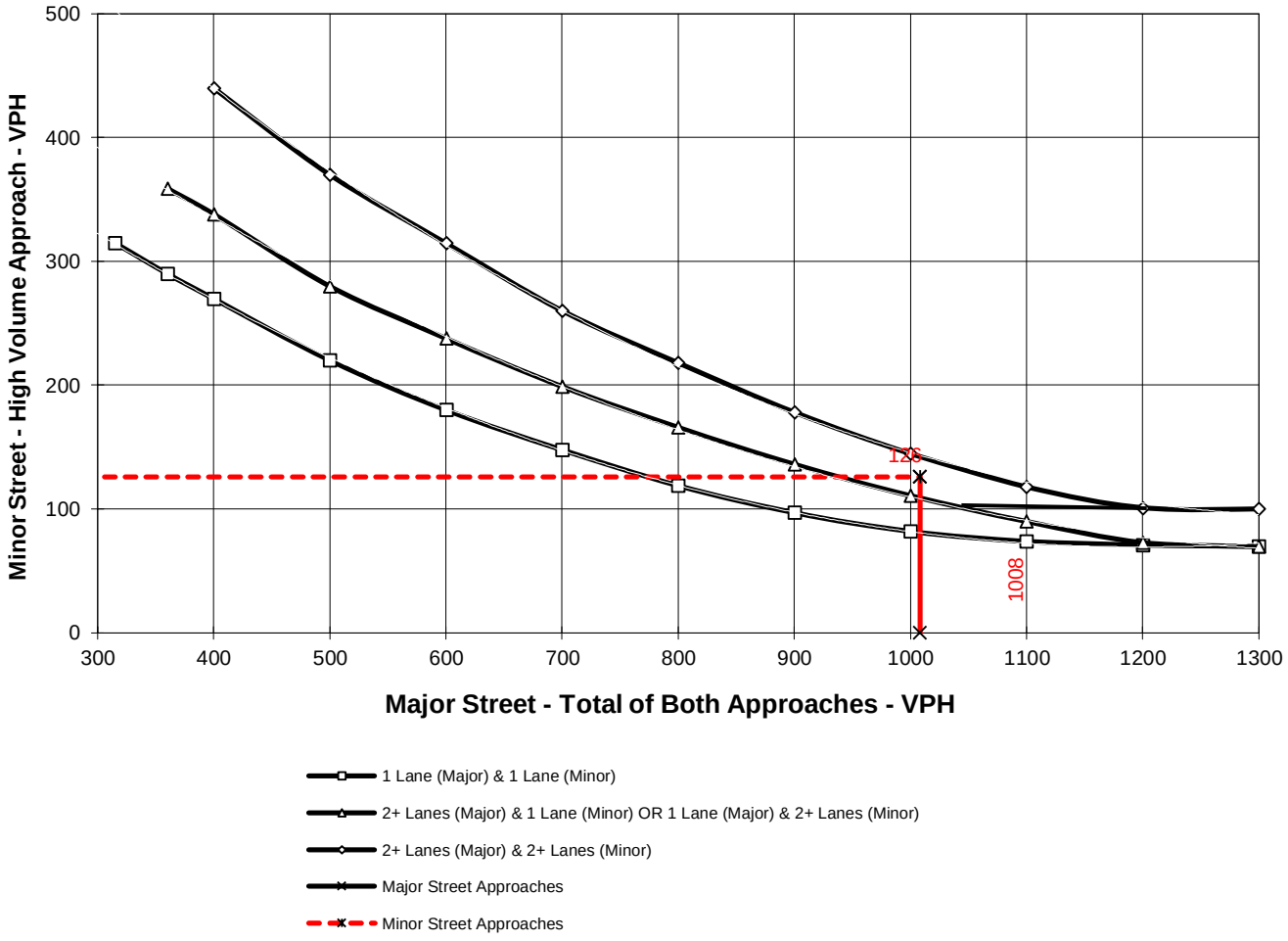
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Sherman Road**

High Volume Approach (VPH) = **126**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



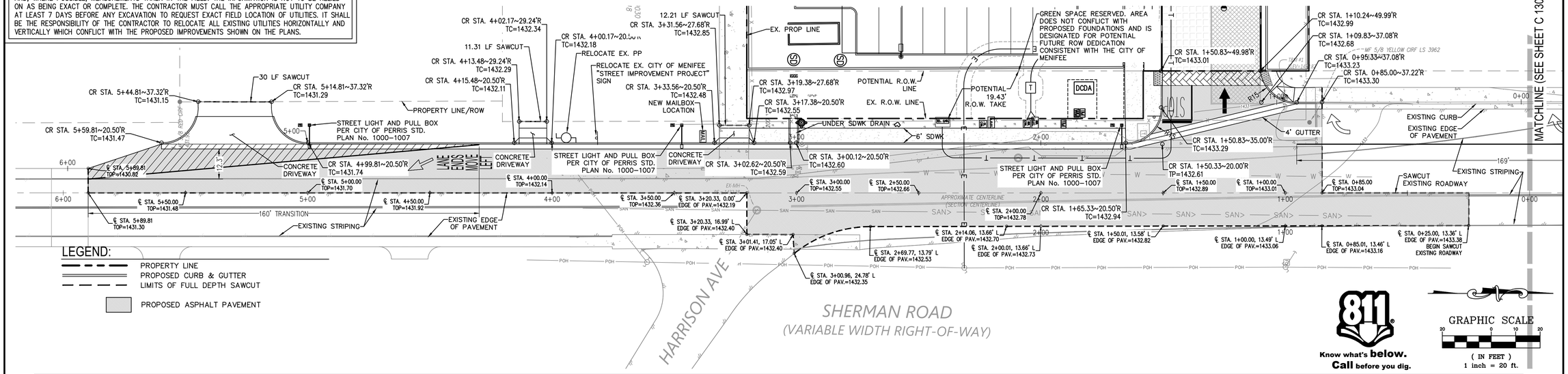
** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

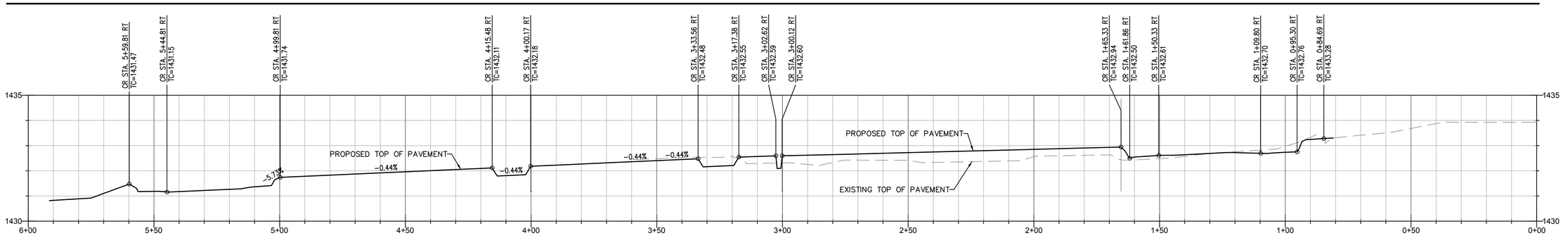
APPENDIX F

SHERMAN ROAD CONCEPTUAL SIGNING/STRIPING PLAN

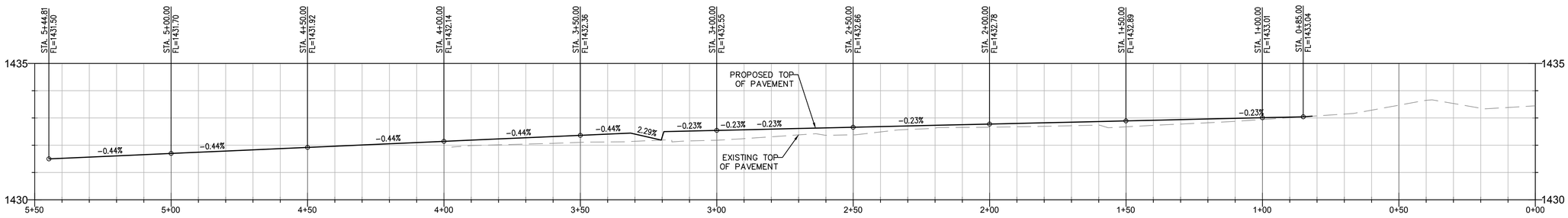
CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 7 DAYS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

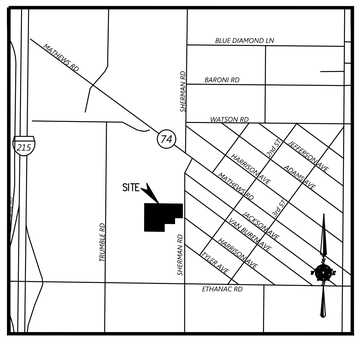




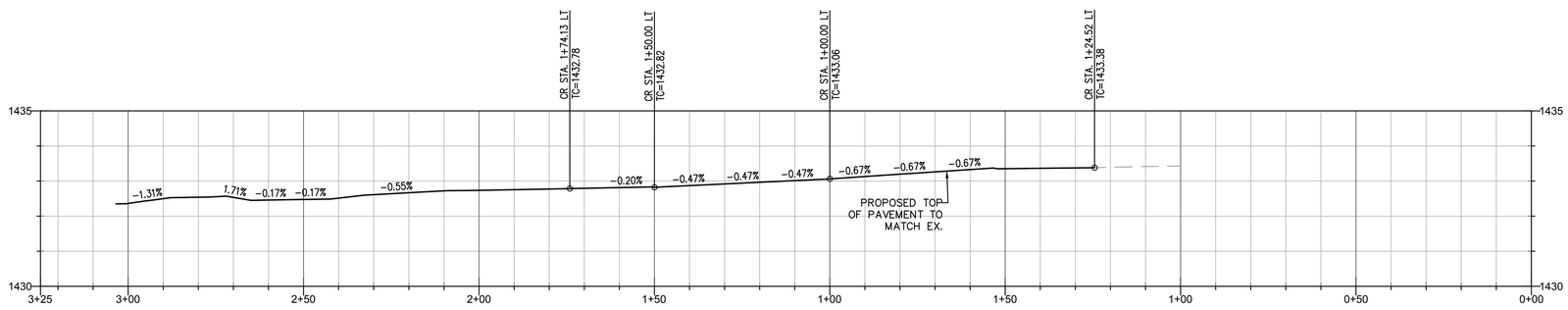
SHERMAN RD RT TOP CURB



SHERMAN RD CENTERLINE



LOCATION MAP
NOT TO SCALE



SHERMAN RD LT EDGE PVMT

38 Executive Park
Suite 310
Irvine, CA 92614

Ph. 760-538-3388

Kyle Flaming, PE
CIVIL ENGINEER

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IT IS NOT TO BE USED FOR CONSTRUCTION.

08/24/2026

OFF-SITE ROADWAY PLAN AND PROFILE

GREEN BEE CONCRETE
25775 SHERMAN RD.
PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	02/27/25	INITIAL SUBMITTAL	TA
	06/09/25	CD SUBMITTAL	GK
	08/24/26	STRIPING LAYOUT	TWA

PROJECT NO: JM-GBC24001.0
DRAWN BY: AB, ML, MM, CK
CHECKED BY: JK
ISSUE DATE: 08/24/2026

C 110

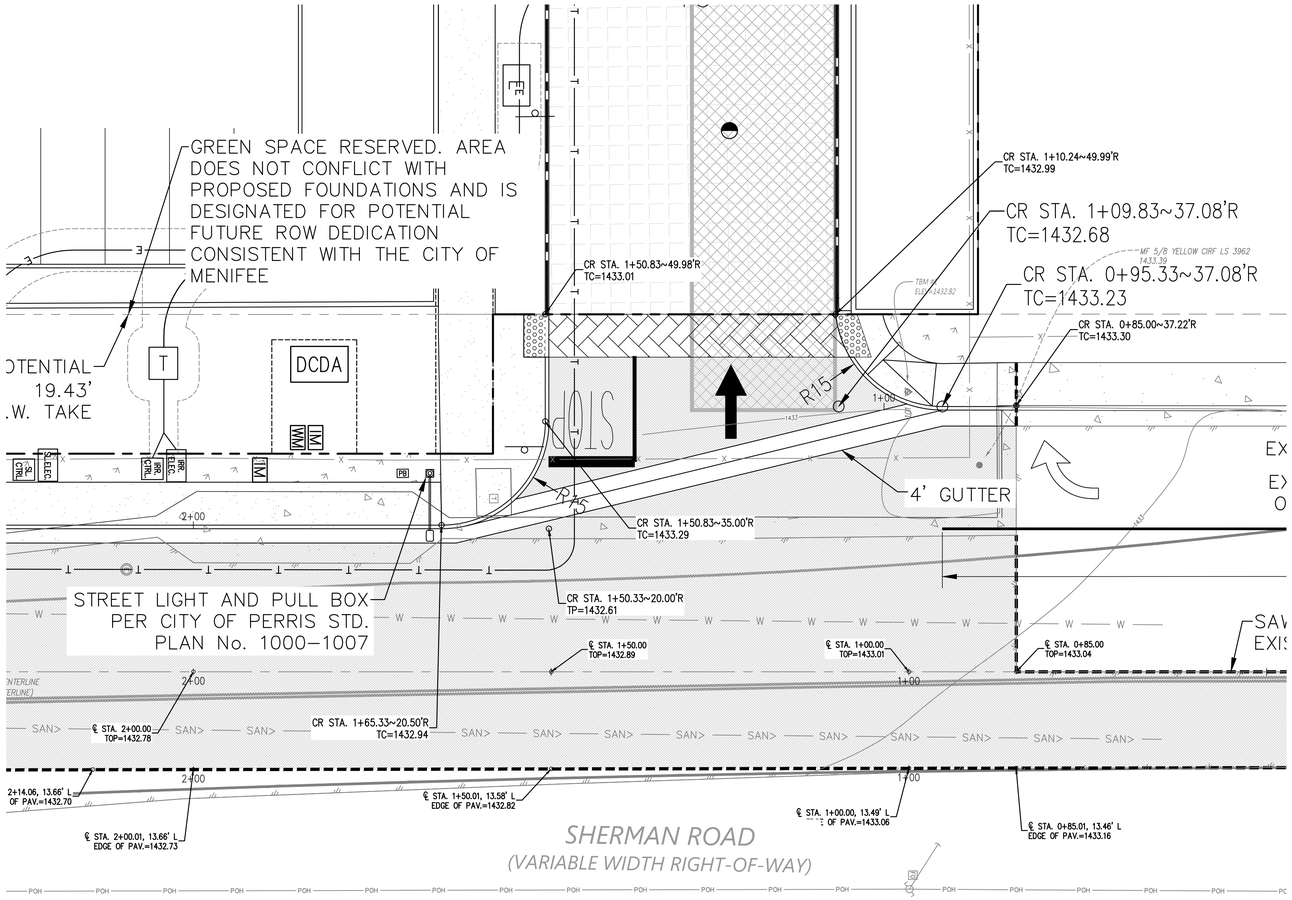
J:\GREEN BEE CONCRETE\JM-GBC24001.0 - PERRIS, CA_CURRENT DRAWINGS\OFF-SITE PLAN SHEETS\JM-GBC24001 PERRIS CA - OFF-SITE_24X36.DWG 8/24/2026 4:15 PM TIM ANDRIES

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LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- PROPOSED ASPHALT PAVEMENT



GRAPHIC SCALE

10 0 5 10

(IN FEET)

1 inch = 10 ft.

38 Executive Park
Suite 310
Irvine, CA 92614

Ph. 760-538-3388

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08/24/2026

OFF-SITE ROADWAY PLAND AND PROFILE

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25775 SHERMAN RD.
PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	02/27/25	INITIAL SUBMITTAL	TA
	06/09/25	CD SUBMITTAL	CK
	08/24/26	STRIPING LAYOUT	TWA

PROJECT NO:
JM-GBC24001.0
DRAWN, BY:
AB, ML, MM, CK
CHECKED, BY:
JK
ISSUE DATE:
08/24/2026

C 120

Know what's **below.**
Call before you dig.

J:\GREEN BEE CONCRETE\JM-GBC24001.0 - PERRIS, CA_CURRENT DRAWINGS\OFF-SITE PLAN SHEETS\JM-GBC24001 PERRIS CA - OFF-SITE_24X36.DWG 8/24/2026 4:16 PM TIM ANDRIES

CAUTION NOTICE TO CONTRACTOR

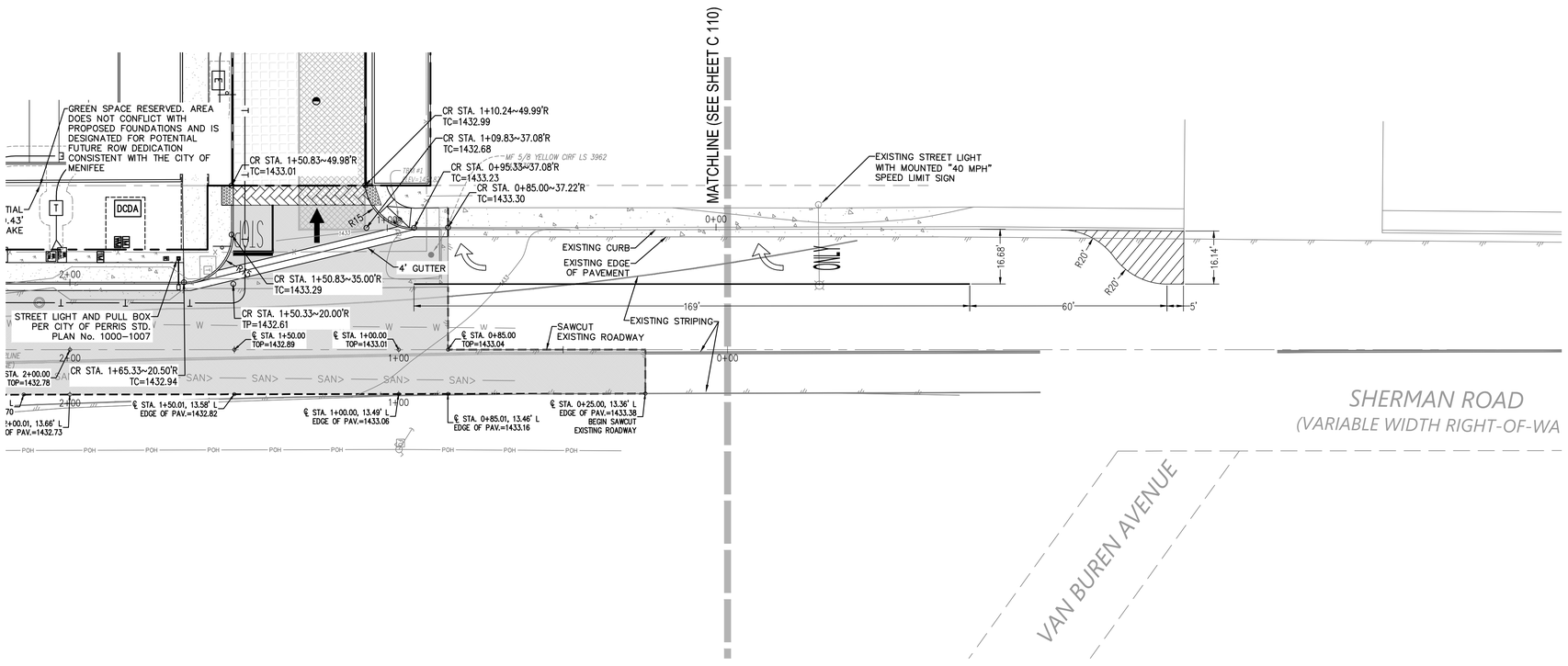
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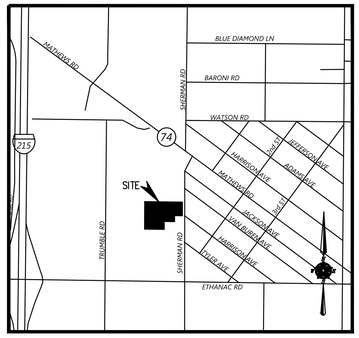
LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- PROPOSED ASPHALT PAVEMENT

811 Know what's **below.** **Call** before you dig.

GRAPHIC SCALE
20 0 10 20
(IN FEET)
1 inch = 20 ft.





LOCATION MAP
NOT TO SCALE

JM CIVIL
38 Executive Park
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Irvine, CA 92614
Ph. 760-538-3388
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PROJECT NO: JM-GBC24001.0
DRAWN BY: AB, ML, MM, CK
CHECKED BY: JK
ISSUE DATE: 08/24/2026

C 130

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GANDDINI GROUP INC.

714.795.3100 | ganddini.com

TECHNICAL MEMORANDUM

TO: Cameron Hile | MIG, INC.

FROM: Bryan Crawford, Giancarlo Ganddini | GANDDINI GROUP, INC.

DATE: May 27, 2026

SUBJECT: PM Design Group Green Bee Contractor Yard (PLN24-05264) Vehicle Miles Traveled Screening Assessment
Project No. 19760

Ganddini Group, Inc. is pleased to provide this transportation screening assessment for the proposed PM Design Group Green Bee Contractor Yard (PLN24-05264) project in the City of Perris. We trust the findings of this analysis will aid the City of Perris in assessing whether preparation of a transportation study will be required for the proposed project.

PROJECT DESCRIPTION

The 5.4-acre project site is located at 25775 Sherman Road in the City of Perris, California (APN: 329-240-031 and 329-240-028). The project site is currently vacant. The project location map is shown on Figure 1.

The proposed project developing a commercial contractor yard with a 25,450 square foot building, 150 parking spaces, 29 truck parking spaces, a 43,470 square foot lumber yard with covered shade structures, and a detention basin in the Light Industrial (LI) Zone. The project is proposing one access driveway to Sherman Road. The proposed site plan is illustrated in Figure 2.

The current and proposed operations do not involve concrete processing/batching. The lumber yard is non-commercial and the contractor's yard will include offices. The outside yard operations stack and store Timberstrand form boards, some dimensional lumber, and stakes. Job site packages including lumber and hardware are loaded onto delivery trucks with forklifts, and lumber delivery trucks leave the yard to go out to different job sites. There are 12 job site delivery trucks that go out each day. They have 3 forklifts that load those trucks. There are 2 table saws that cut stakes and dimensional lumber. All wood waste is recycled in a 40-yard bin, with minimal saw dust. There are no generators in the yard. HVAC units will be whatever are needed for the office building. There are 6 equipment transport trucks that leave the yard in the morning and come back in the afternoon. There are 6 concrete pump trucks that also leave in the morning and come back in the evening.

The working hours are Monday through Friday from 7:00 AM to approximately 4:00 PM. There are anticipated to be 15 office employees (8:00 AM to 5:00 PM), 5 mechanics (8:00 AM to 5:00 PM), and 15-yard employees (6:00 AM to 3:00 PM).

Cameron Hile
MIG, INC.
May 27, 2026

PROJECT TRIP GENERATION

Existing Site

Traffic counts at the existing facility located at 18890 Seaton Avenue, Perris, California 92570 were conducted on three typical weekdays (Wednesday, February 25, 2026, Thursday, March 19, 2026, and Tuesday, March 24, 2026). These traffic counts were conducted in 15-minute intervals over a 24-hour period. Existing traffic counts are included in Attachment A.

Tables 1 and 2 show the inbound and outbound trips generated at the existing facility. Field observations during the traffic count on Wednesday, February 25, 206 indicated that there was a substantial number of vehicles parking along Seaton Avenue and accessing the site. As a result, pedestrian traffic counts were included for Thursday, March 19, 2026, and Tuesday, March 24, 2026, traffic counts. Table 3 shows these pedestrian counts.

Tables 4 and 5 show the inbound and outbound trips generated with on-street employee parking. These tables equated one pedestrian trip as one vehicle trip to provide for a conservative analysis, even though many of these trips most likely involved carpooling. Thus, the existing trips with on-street parking may overestimate the actual existing trip generation.

Table 6 shows the existing site trip generation. As shown on Table 6, the existing site with on-street parking currently generates 340 daily vehicle trips, including 33 vehicle trips during the AM peak hour and 37 vehicle trips during the PM peak hour.

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips. Truck trips were converted to PCE trips based on the following factors from the City of *Perris Transportation Impact Analysis (TIA) Guidelines for Level of Service (LOS and Vehicle Miles Traveled (VMT)*, (April 2026).: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with four or more axles.

As also shown in Table 7, this equates to 426 daily PCE trips, including 44 PCE trips during the AM peak hour and 49 PCE trips during the PM peak hour.

Site Relocation Characteristics

The existing site at 18890 Seaton Avenue, Perris, California 92570 will be closed and moved to the proposed project site. Although the new proposed project site is larger, which includes additional building square footage and on-site parking spaces, the operations are expected to remain consistent. The project applicant is not anticipating any additional growth because of maximized current market dynamics, and the purpose of the move is mostly due to limited space at their current facility to handle existing operations. The number of employees and number of customers is not anticipated to be increased when moving to the new project site. The additional on-site parking spaces will allow employees and customers to park on-site instead of on-street which is currently occurring on their existing site. Also, additional parking spaces can be used for temporary on-site storage of materials. Attachment A includes an operation letter.

Thus, the project trip generation is expected to match the existing trip generation surveyed at the 18890 Seaton Avenue, Perris, California 92570 location.

TRIP DISTRIBUTION AND ASSIGNMENT

Figure 3 and Figure 4 illustrate the forecast directional distribution patterns of project-generated trips based on review of the existing local and regional roadway facilities in the project vicinity and surrounding land uses.

CRITERIA FOR THE PREPARATION OF TRAFFIC IMPACT ANALYSES

According to the City of Perris *Transportation Impact Analysis (TIA) Guidelines for Level of Service (LOS and Vehicle Miles Traveled (VMT)*, (April 2026) ["the *City VMT Guidelines*"], certain types of projects, because of their size, nature, or location, are exempt from the requirement of preparing a traffic impact analysis.

Vehicle Miles Traveled (VMT) Analysis Screening Analysis

The project VMT impact has been assessed in accordance with guidance from the *City of Perris Transportation Impact Analysis Guidelines for CEQA* (May 12, 2020) ["City TIA Guidelines"]. The City TIA Guidelines provide a framework for "screening thresholds" for certain projects that are expected to cause a less than significant impact without conducting a detailed VMT study.

The project requirements for evaluation of transportation impacts under CEQA was assessed using the City of Perris VMT Scoping Form for Land Use Projects as appended to the City of Perris TIA Guidelines and included in Attachment B of this letter. As documented in the VMT Scoping Form, the proposed project satisfies the following VMT screening criteria:

A.	Is the project 100% affordable housing?	No
B.	Is the project within half mile of qualifying transit?	No
C.	Is the project a local serving land use?	No
D.	Is the project in a low VMT area?	No
E.	Are the project's net daily trips less than 500 ADT?	Yes

Therefore, the proposed project is presumed to have a less than significant impact on VMT since it satisfies one or more of the VMT screening criteria established by the City of Perris (the project site is forecast to generate fewer than 500 net daily trips). No mitigation measures are required.

Level of Service (LOS) Analysis Screening Analysis

As noted in the project Scoping Form (see Attachment A), the project is exempt from Level of Service evaluation outside of CEQA based on the project trip generation.

CONCLUSION

The proposed project is forecast to generate 327 daily vehicle trips, including 39 vehicle trips during the AM peak hour and 42 vehicle trips during the PM peak hour. This equates to 426 daily PCE trips, including 44 PCE trips during the AM peak hour and 49 PCE trips during the PM peak hour.

The proposed project satisfies the City-established VMT screening criteria for projects with net daily trips less than 500 ADT; therefore, the project is exempt from preparation of a detailed VMT analysis and may be presumed to result in a less than significant VMT impact.

The project is exempt from Level of Service evaluation outside of CEQA based on the project trip generation.

Cameron Hile
MIG, INC.
May 27, 2026

We appreciate the opportunity to assist you on this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100 x 104.

Sincerely,

GANDDINI GROUP, INC.
Bryan Crawford, Senior Transportation Planner
Giancarlo Ganddini, TE, PTP, Principal



Table 1 (1 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	2	0	0	0	2
3:30 AM - 3:45 AM	4	0	0	0	4	0	0	0	0	0	3	0	0	0	3	3	0	0	0	3
3:45 AM - 4:00 AM	4	0	0	0	4	0	0	1	0	1	2	0	0	0	2	2	0	1	0	3
4:00 AM - 4:15 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2
4:15 AM - 4:30 AM	2	0	0	0	2	5	0	0	0	5	1	0	0	0	1	3	0	0	0	3
4:30 AM - 4:45 AM	1	0	0	0	1	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2
4:45 AM - 5:00 AM	5	0	0	0	5	2	2	0	0	4	3	0	0	0	3	4	1	0	0	5
5:00 AM - 5:15 AM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	1	1	0	0	2
5:15 AM - 5:30 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2
5:30 AM - 5:45 AM	0	0	0	0	0	1	1	0	0	2	3	0	0	0	3	2	1	0	0	3
5:45 AM - 6:00 AM	4	0	0	0	4	2	0	0	0	2	2	1	0	0	3	3	1	0	0	4
6:00 AM - 6:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
6:15 AM - 6:30 AM	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
6:30 AM - 6:45 AM	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
6:45 AM - 7:00 AM	4	2	0	0	6	7	0	0	0	7	9	1	0	0	10	7	1	0	0	8
7:00 AM - 7:15 AM	3	0	1	0	4	5	0	0	0	5	3	0	0	0	3	4	0	1	0	5
7:15 AM - 7:30 AM	2	0	0	0	2	1	1	0	0	2	5	0	0	0	5	3	1	0	0	4
7:30 AM - 7:45 AM	3	0	1	0	4	5	0	0	0	5	1	0	0	0	1	3	0	1	0	4
7:45 AM - 8:00 AM	6	1	0	0	7	1	0	0	0	1	7	0	0	0	7	5	1	0	0	6
8:00 AM - 8:15 AM	2	1	0	0	3	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:15 AM - 8:30 AM	4	0	0	0	4	5	1	0	0	6	0	0	0	0	0	3	1	0	0	4
8:30 AM - 8:45 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
8:45 AM - 9:00 AM	0	1	1	0	2	3	0	0	0	3	1	0	0	0	1	2	1	1	0	4

Table 1 (2 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	3	1	0	0	4	2	1	0	0	3	2	1	0	0	3	3	1	0	0	4
9:15 AM - 9:30 AM	2	0	0	0	2	3	0	2	0	5	1	0	0	0	1	2	0	1	0	3
9:30 AM - 9:45 AM	1	1	0	0	2	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2
9:45 AM - 10:00 AM	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	1	0	0	0	1	1	0	0	1	2	2	0	0	0	2	2	0	0	1	3
10:45 AM - 11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
11:00 AM - 11:15 AM	0	0	1	0	1	1	0	0	0	1	1	0	0	0	1	1	0	1	0	2
11:15 AM - 11:30 AM	1	2	0	0	3	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2
11:45 AM - 12:00 PM	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	2	1	0	0	3
12:00 PM - 12:15 PM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
12:15 PM - 12:30 PM	1	0	0	0	1	1	0	1	0	2	3	0	0	0	3	2	0	1	0	3
12:30 PM - 12:45 PM	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2	1	0	1	0	2
12:45 PM - 1:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2	1	1	1	1	4
1:00 PM - 1:15 PM	2	1	0	0	3	0	0	0	1	1	1	0	0	0	1	1	1	0	1	3
1:15 PM - 1:30 PM	4	1	1	0	6	2	1	0	1	4	0	0	0	1	1	2	1	1	1	5
1:30 PM - 1:45 PM	0	0	0	0	0	4	0	0	0	4	0	1	1	0	2	2	1	1	0	4
1:45 PM - 2:00 PM	2	0	0	0	2	4	1	0	0	5	0	1	0	0	1	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	1	2	2	0	0	4	1	1	1	0	3
2:15 PM - 2:30 PM	1	1	1	1	4	0	0	0	0	0	1	0	1	0	2	1	1	1	1	4
2:30 PM - 2:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2
2:45 PM - 3:00 PM	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	1	1	0	0	2
3:00 PM - 3:15 PM	1	0	0	0	1	1	0	2	0	3	0	2	1	0	3	1	1	1	0	3
3:15 PM - 3:30 PM	1	0	0	0	1	1	1	1	0	3	1	2	0	1	4	1	1	1	1	4
3:30 PM - 3:45 PM	0	0	1	0	1	3	1	0	1	5	2	0	0	0	2	2	1	1	1	5
3:45 PM - 4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
4:00 PM - 4:15 PM	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	1	1	1	0	3
4:15 PM - 4:30 PM	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1
4:45 PM - 5:00 PM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	1	1	1	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	1	0	1	1	3
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	1	0	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1

Table 1 (3 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:30 PM - 6:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:45 PM - 7:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
11:45 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
Daily	84	19	11	2	116	90	23	10	5	128	87	17	9	4	117	87	20	10	4	121
AM Peak Hour*	7:00 AM - 8:00 AM															15	2	2	0	19
PM Peak Hour*	4:15 PM - 5:15 PM															3	2	3	1	9

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 2 (1 of 3)
Survey Site Inbound Trips Generated Summary

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	2
3:45 AM - 4:00 AM	0	1	0	1	2	0	2	0	1	3	0	0	0	0	0	0	1	0	1	2
4:00 AM - 4:15 AM	0	0	0	2	2	0	0	0	0	0	1	2	0	0	3	1	1	0	1	3
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
4:30 AM - 4:45 AM	0	1	1	0	2	0	1	0	1	2	0	0	2	0	2	0	1	1	1	3
4:45 AM - 5:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
5:00 AM - 5:15 AM	1	0	1	0	2	1	2	0	0	3	0	1	0	0	1	1	1	1	0	3
5:15 AM - 5:30 AM	0	2	0	0	2	0	1	3	0	4	1	2	3	0	6	1	2	2	0	5
5:30 AM - 5:45 AM	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	1	0	2
5:45 AM - 6:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	2
6:00 AM - 6:15 AM	2	0	1	0	3	1	2	1	0	4	0	2	1	0	3	1	2	1	0	4
6:15 AM - 6:30 AM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
6:30 AM - 6:45 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
6:45 AM - 7:00 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	1	1	0	0	2
7:00 AM - 7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
7:15 AM - 7:30 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	1	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:00 AM - 8:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8:15 AM - 8:30 AM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2

Table 2 (2 of 3)
Survey Site Inbound Trips Generated Summary

	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
9:00 AM - 9:15 AM	2	0	1	0	3	0	2	0	0	2	1	0	0	0	1	1	1	1	0	3
9:15 AM - 9:30 AM	0	1	0	0	1	1	1	1	0	3	2	1	0	0	3	1	1	1	0	3
9:30 AM - 9:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:45 AM - 10:00 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
10:00 AM - 10:15 AM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
10:45 AM - 11:00 AM	1	0	0	0	1	1	0	1	0	2	1	0	0	0	1	1	0	1	0	2
11:00 AM - 11:15 AM	2	0	0	0	2	1	1	0	0	2	2	0	0	0	2	2	1	0	0	3
11:15 AM - 11:30 AM	2	0	0	0	2	2	1	0	0	3	2	0	0	0	2	2	1	0	0	3
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	0	2	2	0	0	0	2	2	0	1	0	3
11:45 AM - 12:00 PM	2	0	0	0	2	2	0	0	1	3	1	0	0	0	1	2	0	0	1	3
12:00 PM - 12:15 PM	2	0	0	0	2	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
12:15 PM - 12:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
12:30 PM - 12:45 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	0	0	0	1
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	0	1
1:00 PM - 1:15 PM	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
1:15 PM - 1:30 PM	4	0	0	0	4	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2
1:30 PM - 1:45 PM	4	0	0	0	4	3	0	1	0	4	0	0	0	1	1	3	0	1	1	5
1:45 PM - 2:00 PM	1	1	0	0	2	1	0	0	0	1	2	0	0	0	2	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
2:15 PM - 2:30 PM	0	0	0	0	0	4	0	0	0	4	1	1	0	0	2	2	1	0	0	3
2:30 PM - 2:45 PM	5	1	1	0	7	2	1	0	0	3	2	0	0	0	2	3	1	1	0	5
2:45 PM - 3:00 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3
3:00 PM - 3:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
3:15 PM - 3:30 PM	3	0	0	0	3	6	0	0	0	6	3	0	0	0	3	4	0	0	0	4
3:30 PM - 3:45 PM	2	0	0	0	2	7	1	0	0	8	8	1	0	0	9	6	1	0	0	7
3:45 PM - 4:00 PM	4	0	0	0	4	12	0	0	0	12	7	0	0	0	7	8	0	0	0	8
4:00 PM - 4:15 PM	7	0	0	0	7	5	0	0	0	5	2	0	0	0	2	5	0	0	0	5
4:15 PM - 4:30 PM	3	0	0	0	3	4	0	0	0	4	1	2	0	0	3	3	1	0	0	4
4:30 PM - 4:45 PM	5	0	0	0	5	4	1	0	0	5	5	0	0	0	5	5	1	0	0	6
4:45 PM - 5:00 PM	2	0	0	0	2	3	1	0	0	4	5	0	0	0	5	4	1	0	0	5
5:00 PM - 5:15 PM	6	0	0	0	6	6	0	0	0	6	5	0	0	0	5	6	0	0	0	6
5:15 PM - 5:30 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1

Table 2 (3 of 3)
Survey Site Inbound Trips Generated Summary

	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
5:30 PM - 5:45 PM	0	0	0	0	0	1	0	0	0	1	6	0	0	0	6	3	0	0	0	3
5:45 PM - 6:00 PM	2	0	0	0	2	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
7:00 PM - 7:15 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
7:15 PM - 7:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Daily	84	19	7	3	113	92	23	12	3	130	82	18	10	4	114	86	20	10	4	120
AM Peak Hour*	7:00 AM - 8:00 AM															4	4	1	0	9
PM Peak Hour*	4:15 PM - 5:15 PM															18	3	0	0	21

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 3 (1 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
12:00 AM - 12:15 AM	0	0	0
12:15 AM - 12:30 AM	0	0	0
12:30 AM - 12:45 AM	0	0	0
12:45 AM - 1:00 AM	0	0	0
1:00 AM - 1:15 AM	0	0	0
1:15 AM - 1:30 AM	0	0	0
1:30 AM - 1:45 AM	0	0	0
1:45 AM - 2:00 AM	0	0	0
2:00 AM - 2:15 AM	0	0	0
2:15 AM - 2:30 AM	0	0	0
2:30 AM - 2:45 AM	0	0	0
2:45 AM - 3:00 AM	0	0	0
3:00 AM - 3:15 AM	0	0	0
3:15 AM - 3:30 AM	1	0	1
3:30 AM - 3:45 AM	2	1	2
3:45 AM - 4:00 AM	1	0	1
4:00 AM - 4:15 AM	0	0	0
4:15 AM - 4:30 AM	0	1	1
4:30 AM - 4:45 AM	1	0	1
4:45 AM - 5:00 AM	5	5	5
5:00 AM - 5:15 AM	0	3	2
5:15 AM - 5:30 AM	0	0	0
5:30 AM - 5:45 AM	0	4	2
5:45 AM - 6:00 AM	2	2	2
6:00 AM - 6:15 AM	0	0	0
6:15 AM - 6:30 AM	0	0	0
6:30 AM - 6:45 AM	0	2	1
6:45 AM - 7:00 AM	7	10	9
7:00 AM - 7:15 AM	8	2	5
7:15 AM - 7:30 AM	0	0	0
7:30 AM - 7:45 AM	0	0	0
7:45 AM - 8:00 AM	0	0	0
8:00 AM - 8:15 AM	0	0	0
8:15 AM - 8:30 AM	0	0	0
8:30 AM - 8:45 AM	1	0	1
8:45 AM - 9:00 AM	3	2	3

	Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
	Pedestrians	Pedestrians	Pedestrians
12:00 AM - 12:15 AM	0	0	0
12:15 AM - 12:30 AM	0	0	0
12:30 AM - 12:45 AM	0	0	0
12:45 AM - 1:00 AM	0	0	0
1:00 AM - 1:15 AM	0	0	0
1:15 AM - 1:30 AM	0	0	0
1:30 AM - 1:45 AM	0	0	0
1:45 AM - 2:00 AM	0	0	0
2:00 AM - 2:15 AM	0	0	0
2:15 AM - 2:30 AM	0	0	0
2:30 AM - 2:45 AM	0	0	0
2:45 AM - 3:00 AM	0	0	0
3:00 AM - 3:15 AM	0	0	0
3:15 AM - 3:30 AM	0	0	0
3:30 AM - 3:45 AM	0	0	0
3:45 AM - 4:00 AM	0	0	0
4:00 AM - 4:15 AM	0	0	0
4:15 AM - 4:30 AM	0	0	0
4:30 AM - 4:45 AM	0	0	0
4:45 AM - 5:00 AM	0	0	0
5:00 AM - 5:15 AM	0	0	0
5:15 AM - 5:30 AM	0	0	0
5:30 AM - 5:45 AM	0	1	1
5:45 AM - 6:00 AM	0	0	0
6:00 AM - 6:15 AM	0	0	0
6:15 AM - 6:30 AM	0	0	0
6:30 AM - 6:45 AM	0	0	0
6:45 AM - 7:00 AM	1	0	1
7:00 AM - 7:15 AM	0	0	0
7:15 AM - 7:30 AM	0	0	0
7:30 AM - 7:45 AM	0	0	0
7:45 AM - 8:00 AM	0	0	0
8:00 AM - 8:15 AM	0	0	0
8:15 AM - 8:30 AM	0	0	0
8:30 AM - 8:45 AM	1	0	1
8:45 AM - 9:00 AM	0	0	0

Table 3 (2 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
9:00 AM - 9:15 AM	1	1	1
9:15 AM - 9:30 AM	0	3	2
9:30 AM - 9:45 AM	0	0	0
9:45 AM - 10:00 AM	5	3	4
10:00 AM - 10:15 AM	1	0	1
10:15 AM - 10:30 AM	1	1	1
10:30 AM - 10:45 AM	0	0	0
10:45 AM - 11:00 AM	0	0	0
11:00 AM - 11:15 AM	0	1	1
11:15 AM - 11:30 AM	1	2	2
11:30 AM - 11:45 AM	1	0	1
11:45 AM - 12:00 PM	0	0	0
12:00 PM - 12:15 PM	1	0	1
12:15 PM - 12:30 PM	0	2	1
12:30 PM - 12:45 PM	2	0	1
12:45 PM - 1:00 PM	0	0	0
1:00 PM - 1:15 PM	0	0	0
1:15 PM - 1:30 PM	2	2	2
1:30 PM - 1:45 PM	2	0	1
1:45 PM - 2:00 PM	0	0	0
2:00 PM - 2:15 PM	0	0	0
2:15 PM - 2:30 PM	0	0	0
2:30 PM - 2:45 PM	0	0	0
2:45 PM - 3:00 PM	1	0	1
3:00 PM - 3:15 PM	0	0	0
3:15 PM - 3:30 PM	0	0	0
3:30 PM - 3:45 PM	0	1	1
3:45 PM - 4:00 PM	0	0	0
4:00 PM - 4:15 PM	0	0	0
4:15 PM - 4:30 PM	0	0	0
4:30 PM - 4:45 PM	1	0	1
4:45 PM - 5:00 PM	0	0	0
5:00 PM - 5:15 PM	0	0	0
5:15 PM - 5:30 PM	0	0	0
5:30 PM - 5:45 PM	0	0	0
5:45 PM - 6:00 PM	0	0	0

	Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
	Pedestrians	Pedestrians	Pedestrians
	0	3	2
	3	0	2
	1	3	2
	2	0	1
	1	1	1
	0	0	0
	2	1	2
	0	0	0
	2	3	3
	0	0	0
	0	0	0
	0	0	0
	0	1	1
	1	1	1
	0	0	0
	1	0	1
	4	4	4
	1	0	1
	0	0	0
	0	0	0
	2	2	2
	1	0	1
	0	3	2
	1	0	1
	3	2	3
	2	1	2
	15	13	14
	0	0	0
	1	0	1
	0	0	0
	1	1	1
	0	3	2
	4	1	3
	1	1	1
	1	2	2
	0	0	0

Table 3 (3 of 3)
Survey Site Inbound and Outbound Pedestrian Trips Generated Summary

	Number of Inbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
Time Period	Pedestrians	Pedestrians	Pedestrians
6:00 PM - 6:15 PM	0	0	0
6:15 PM - 6:30 PM	0	0	0
6:30 PM - 6:45 PM	0	0	0
6:45 PM - 7:00 PM	0	0	0
7:00 PM - 7:15 PM	0	0	0
7:15 PM - 7:30 PM	0	0	0
7:30 PM - 7:45 PM	0	0	0
7:45 PM - 8:00 PM	0	0	0
8:00 PM - 8:15 PM	0	0	0
8:15 PM - 8:30 PM	0	0	0
8:30 PM - 8:45 PM	0	0	0
8:45 PM - 9:00 PM	0	0	0
9:00 PM - 9:15 PM	0	0	0
9:15 PM - 9:30 PM	0	0	0
9:30 PM - 9:45 PM	0	0	0
9:45 PM - 10:00 PM	0	0	0
10:00 PM - 10:15 PM	0	0	0
10:15 PM - 10:30 PM	0	0	0
10:30 PM - 10:45 PM	0	0	0
10:45 PM - 11:00 PM	0	0	0
11:00 PM - 11:15 PM	0	0	0
11:15 PM - 11:30 PM	0	0	0
11:30 PM - 11:45 PM	0	0	0
11:45 PM - 12:00 AM	0	0	0
Daily	50	48	49

	Number of Outbound Pedestrian Trips Generated - Seaton Avenue		
	Thursday (March 19, 2026)	Tuesday (March 24, 2026)	Average
	Pedestrians	Pedestrians	Pedestrians
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	52	47	50

Table 4 (1 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
3:15 AM - 3:30 AM	1	0	0	0	1	2	0	0	0	2	5	0	0	0	5	3	0	0	0	3
3:30 AM - 3:45 AM	6	0	0	0	6	2	0	0	0	2	5	0	0	0	5	5	0	0	0	5
3:45 AM - 4:00 AM	5	0	0	0	5	1	0	1	0	2	3	0	0	0	3	3	0	1	0	4
4:00 AM - 4:15 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2
4:15 AM - 4:30 AM	3	0	0	0	3	6	0	0	0	6	2	0	0	0	2	4	0	0	0	4
4:30 AM - 4:45 AM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
4:45 AM - 5:00 AM	10	0	0	0	10	7	2	0	0	9	8	0	0	0	8	9	1	0	0	10
5:00 AM - 5:15 AM	2	0	0	0	2	3	2	0	0	5	4	0	0	0	4	3	1	0	0	4
5:15 AM - 5:30 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	2
5:30 AM - 5:45 AM	2	0	0	0	2	3	1	0	0	4	5	0	0	0	5	4	1	0	0	5
5:45 AM - 6:00 AM	6	0	0	0	6	4	0	0	0	4	4	1	0	0	5	5	1	0	0	6
6:00 AM - 6:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2
6:15 AM - 6:30 AM	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
6:30 AM - 6:45 AM	5	0	0	0	5	3	0	0	0	3	1	0	0	0	1	3	0	0	0	3
6:45 AM - 7:00 AM	13	2	0	0	15	16	0	0	0	16	18	1	0	0	19	16	1	0	0	17
7:00 AM - 7:15 AM	8	0	1	0	9	10	0	0	0	10	8	0	0	0	8	9	0	1	0	10
7:15 AM - 7:30 AM	2	0	0	0	2	1	1	0	0	2	5	0	0	0	5	3	1	0	0	4
7:30 AM - 7:45 AM	3	0	1	0	4	5	0	0	0	5	1	0	0	0	1	3	0	1	0	4
7:45 AM - 8:00 AM	6	1	0	0	7	1	0	0	0	1	7	0	0	0	7	5	1	0	0	6
8:00 AM - 8:15 AM	2	1	0	0	3	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:15 AM - 8:30 AM	4	0	0	0	4	5	1	0	0	6	0	0	0	0	0	3	1	0	0	4
8:30 AM - 8:45 AM	5	0	0	0	5	1	0	0	0	1	1	0	0	0	1	3	0	0	0	3
8:45 AM - 9:00 AM	3	1	1	0	5	6	0	0	0	6	4	0	0	0	4	5	1	1	0	7

Table 4 (2 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	4	1	0	0	5	3	1	0	0	4	3	1	0	0	4	4	1	0	0	5
9:15 AM - 9:30 AM	4	0	0	0	4	5	0	2	0	7	3	0	0	0	3	4	0	1	0	5
9:30 AM - 9:45 AM	1	1	0	0	2	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2
9:45 AM - 10:00 AM	5	0	0	0	5	5	0	0	0	5	6	0	0	0	6	6	0	0	0	6
10:00 AM - 10:15 AM	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
10:15 AM - 10:30 AM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	1	0	0	0	1	1	0	0	1	2	2	0	0	0	2	2	0	0	1	3
10:45 AM - 11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2
11:00 AM - 11:15 AM	1	0	1	0	2	2	0	0	0	2	2	0	0	0	2	2	0	1	0	3
11:15 AM - 11:30 AM	3	2	0	0	5	2	1	0	0	3	3	0	0	0	3	3	1	0	0	4
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	1	3	1	0	0	0	1	1	0	1	1	3
11:45 AM - 12:00 PM	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	2	1	0	0	3
12:00 PM - 12:15 PM	3	0	0	0	3	4	0	0	0	4	3	0	0	0	3	4	0	0	0	4
12:15 PM - 12:30 PM	2	0	0	0	2	2	0	1	0	3	4	0	0	0	4	3	0	1	0	4
12:30 PM - 12:45 PM	3	0	0	0	3	1	0	0	0	1	2	0	1	0	3	2	0	1	0	3
12:45 PM - 1:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2	1	1	1	1	4
1:00 PM - 1:15 PM	2	1	0	0	3	0	0	0	1	1	1	0	0	0	1	1	1	0	1	3
1:15 PM - 1:30 PM	6	1	1	0	8	4	1	0	1	6	2	0	0	1	3	4	1	1	1	7
1:30 PM - 1:45 PM	1	0	0	0	1	5	0	0	0	5	1	1	1	0	3	3	1	1	0	5
1:45 PM - 2:00 PM	2	0	0	0	2	4	1	0	0	5	0	1	0	0	1	2	1	0	0	3
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	1	0	1	2	2	0	0	4	1	1	1	0	3
2:15 PM - 2:30 PM	1	1	1	1	4	0	0	0	0	0	1	0	1	0	2	1	1	1	1	4
2:30 PM - 2:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2
2:45 PM - 3:00 PM	1	1	0	0	2	2	1	0	0	3	1	1	0	0	2	2	1	0	0	3
3:00 PM - 3:15 PM	1	0	0	0	1	1	0	2	0	3	0	2	1	0	3	1	1	1	0	3
3:15 PM - 3:30 PM	1	0	0	0	1	1	1	1	0	3	1	2	0	1	4	1	1	1	1	4
3:30 PM - 3:45 PM	1	0	1	0	2	4	1	0	1	6	3	0	0	0	3	3	1	1	1	6
3:45 PM - 4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2
4:00 PM - 4:15 PM	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	1	1	1	0	3
4:15 PM - 4:30 PM	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	1	0	1	0	2
4:30 PM - 4:45 PM	1	0	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
4:45 PM - 5:00 PM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	1	1	1	0	3
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	1	0	1	1	3
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	1	0	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1

Table 4 (3 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Inbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
6:30 PM - 6:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:45 PM - 7:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:00 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
11:45 PM - 12:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
Daily	133	19	11	2	174	139	23	10	5	186	136	17	9	4	166	136	20	10	4	170
AM Peak Hour*	7:00 AM - 8:00 AM															20	2	2	0	24
PM Peak Hour*	4:15 PM - 5:15 PM															4	2	3	1	10

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 5 (1 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	1	1	2
3:45 AM - 4:00 AM	0	1	0	1	2	0	2	0	1	3	0	0	0	0	0	0	1	0	1	2
4:00 AM - 4:15 AM	0	0	0	2	2	0	0	0	0	0	1	2	0	0	3	1	1	0	1	3
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
4:30 AM - 4:45 AM	0	1	1	0	2	0	1	0	1	2	0	0	2	0	2	0	1	1	1	3
4:45 AM - 5:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3
5:00 AM - 5:15 AM	1	0	1	0	2	1	2	0	0	3	0	1	0	0	1	1	1	1	0	3
5:15 AM - 5:30 AM	0	2	0	0	2	0	1	3	0	4	1	2	3	0	6	1	2	2	0	5
5:30 AM - 5:45 AM	1	1	0	0	2	1	0	1	0	2	1	1	0	0	2	1	1	1	0	3
5:45 AM - 6:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	2
6:00 AM - 6:15 AM	2	0	1	0	3	1	2	1	0	4	0	2	1	0	3	1	2	1	0	4
6:15 AM - 6:30 AM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	1	1	0	0	2
6:30 AM - 6:45 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
6:45 AM - 7:00 AM	1	0	0	0	1	1	2	0	0	3	2	0	0	0	2	2	1	0	0	3
7:00 AM - 7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2
7:15 AM - 7:30 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	1	2	1	0	0	3	1	0	0	0	1	2	1	0	0	3
8:00 AM - 8:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8:15 AM - 8:30 AM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2
8:30 AM - 8:45 AM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
8:45 AM - 9:00 AM	1	1	0	0	2	0	0	1	0	1	1	0	0	0	1	1	1	1	0	3

Table 5 (2 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
9:00 AM - 9:15 AM	4	0	1	0	5	2	2	0	0	4	3	0	0	0	3	3	1	1	0	5
9:15 AM - 9:30 AM	2	1	0	0	3	3	1	1	0	5	4	1	0	0	5	3	1	1	0	5
9:30 AM - 9:45 AM	2	1	0	0	3	2	0	0	0	2	2	0	0	0	2	2	1	0	0	3
9:45 AM - 10:00 AM	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2
10:00 AM - 10:15 AM	1	0	0	0	1	3	0	0	0	3	2	0	0	0	2	2	0	0	0	2
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
10:30 AM - 10:45 AM	2	0	0	0	2	3	0	0	0	3	2	0	0	0	2	3	0	0	0	3
10:45 AM - 11:00 AM	1	0	0	0	1	1	0	1	0	2	1	0	0	0	1	1	0	1	0	2
11:00 AM - 11:15 AM	5	0	0	0	5	4	1	0	0	5	5	0	0	0	5	5	1	0	0	6
11:15 AM - 11:30 AM	2	0	0	0	2	2	1	0	0	3	2	0	0	0	2	2	1	0	0	3
11:30 AM - 11:45 AM	1	0	0	0	1	1	0	1	0	2	2	0	0	0	2	2	0	1	0	3
11:45 AM - 12:00 PM	2	0	0	0	2	2	0	0	1	3	1	0	0	0	1	2	0	0	1	3
12:00 PM - 12:15 PM	3	0	0	0	3	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3
12:15 PM - 12:30 PM	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2	2	0	0	0	2
12:30 PM - 12:45 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	0	0	0	1
12:45 PM - 1:00 PM	1	0	0	0	1	1	0	0	0	1	1	0	2	0	3	1	0	1	0	2
1:00 PM - 1:15 PM	7	0	0	0	7	6	0	0	0	6	4	0	0	0	4	6	0	0	0	6
1:15 PM - 1:30 PM	5	0	0	0	5	2	0	0	0	2	2	0	0	0	2	3	0	0	0	3
1:30 PM - 1:45 PM	4	0	0	0	4	3	0	1	0	4	0	0	0	1	1	3	0	1	1	5
1:45 PM - 2:00 PM	1	1	0	0	2	1	0	0	0	1	2	0	0	0	2	2	1	0	0	3
2:00 PM - 2:15 PM	2	0	0	0	2	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
2:15 PM - 2:30 PM	1	0	0	0	1	5	0	0	0	5	2	1	0	0	3	3	1	0	0	4
2:30 PM - 2:45 PM	7	1	1	0	9	4	1	0	0	5	4	0	0	0	4	5	1	1	0	7
2:45 PM - 3:00 PM	2	1	1	0	4	1	0	0	0	1	1	0	0	0	1	2	1	1	0	4
3:00 PM - 3:15 PM	3	0	0	0	3	4	0	0	0	4	3	0	0	0	3	4	0	0	0	4
3:15 PM - 3:30 PM	5	0	0	0	5	8	0	0	0	8	5	0	0	0	5	6	0	0	0	6
3:30 PM - 3:45 PM	16	0	0	0	16	21	1	0	0	22	22	1	0	0	23	20	1	0	0	21
3:45 PM - 4:00 PM	4	0	0	0	4	12	0	0	0	12	7	0	0	0	7	8	0	0	0	8
4:00 PM - 4:15 PM	8	0	0	0	8	6	0	0	0	6	3	0	0	0	3	6	0	0	0	6
4:15 PM - 4:30 PM	3	0	0	0	3	4	0	0	0	4	1	2	0	0	3	3	1	0	0	4
4:30 PM - 4:45 PM	6	0	0	0	6	5	1	0	0	6	6	0	0	0	6	6	1	0	0	7
4:45 PM - 5:00 PM	4	0	0	0	4	5	1	0	0	6	7	0	0	0	7	6	1	0	0	7
5:00 PM - 5:15 PM	9	0	0	0	9	9	0	0	0	9	8	0	0	0	8	9	0	0	0	9
5:15 PM - 5:30 PM	2	0	0	0	2	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
5:30 PM - 5:45 PM	2	0	0	0	2	3	0	0	0	3	8	0	0	0	8	5	0	0	0	5
5:45 PM - 6:00 PM	2	0	0	0	2	1	0	0	0	1	2	1	0	0	3	2	1	0	0	3

Table 5 (3 of 3)
Survey Site Inbound Trips Generated Summary - With On-Street Employee Parking

Time Period	Number of Outbound Trips Generated																			
	Wednesday (February 25, 2026)					Thursday (March 19, 2026)					Tuesday (March 24, 2026)					Average				
	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total	Passenger Cars	Trucks			Total
		2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle			2-Axle	3-Axle	4+-Axle	
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
7:00 PM - 7:15 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
7:15 PM - 7:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM - 8:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
8:00 PM - 8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM - 8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM - 8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM - 9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM - 9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM - 9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM - 9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM - 10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM - 10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM - 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM - 10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM - 11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM - 11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM - 11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1
11:30 PM - 11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM - 12:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Daily	134	19	7	3	172	142	23	12	3	189	132	18	10	4	164	136	20	10	4	170
AM Peak Hour*	7:00 AM - 8:00 AM															4	4	1	0	9
PM Peak Hour*	4:15 PM - 5:15 PM															24	3	0	0	27

Notes:

* Peak hours shown for peak of adjacent street traffic (one hour between 7-9 AM and one hour between 4-6PM) based on sum of inbound plus outbound trips.

Table 6
Existing Site Trip Generation

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility	Counts								
Passenger Cars		1 Site	15	4	19	3	18	21	173
Trucks (2-Axle)		1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)		1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)		1 Site	0	0	0	1	0	1	8
Subtotal			19	9	28	9	21	30	241

Trips Generated - With On-Street Employee Parking									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility	Counts								
Passenger Cars		1 Site	20	4	24	4	24	28	272
Trucks (2-Axle)		1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)		1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)		1 Site	0	0	0	1	0	1	8
Subtotal			24	9	33	10	27	37	340

Notes:
1. Traffic counts at project driveway (see Tables 1 to 5).
2. Green Bee Facility at 18890 Seaton Ave, Perris, CA 92570.

Table 7
Project Trips Generated

Vehicle Trips Generated								
		AM Peak Hour			PM Peak Hour			
Land Use	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility								
Passenger Cars	1 Site	15	4	19	3	18	21	173
Trucks (2-Axle)	1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)	1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)	1 Site	0	0	0	1	0	1	8
Subtotal - Trucks		19	9	28	9	21	30	241
TOTAL VEHICLE TRIPS GENERATED		**19**	**9**	**28**	**9**	**21**	**30**	**241**
PCE Trips Generated[3]								
Green Bee Facility	PCE Factor							
Passenger Cars	1.0 PCE	15	4	19	3	18	21	173
Trucks (2-Axle)	1.5 PCE	4	8	12	4	6	10	80
Trucks (3-Axle)	2.0 PCE	5	3	8	8	0	8	50
Trucks (4+-Axle)	3.0 PCE	0	0	0	3	0	3	24
Subtotal - Trucks (PCE)		9	11	20	15	6	21	154
TOTAL PCE TRIPS GENERATED		**24**	**15**	**39**	**18**	**24**	**42**	**327**

Vehicle Trips Generated - With On-Street Employee Parking								
		AM Peak Hour			PM Peak Hour			
Land Use	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Green Bee Facility								
Passenger Cars	1 Site	20	4	24	4	24	28	272
Trucks (2-Axle)	1 Site	2	4	6	2	3	5	40
Trucks (3-Axle)	1 Site	2	1	3	3	0	3	20
Trucks (4+-Axle)	1 Site	0	0	0	1	0	1	8
Subtotal - Trucks		24	9	33	10	27	37	340
TOTAL VEHICLE TRIPS GENERATED		**24**	**9**	**33**	**10**	**27**	**37**	**340**
PCE Trips Generated[3] - With On-Street Employee Parking								
Green Bee Facility	PCE Factor							
Passenger Cars	1.0 PCE	20	4	24	4	24	28	272
Trucks (2-Axle)	1.5 PCE	4	8	12	4	6	10	80
Trucks (3-Axle)	2.0 PCE	5	3	8	8	0	8	50
Trucks (4+-Axle)	3.0 PCE	0	0	0	3	0	3	24
Subtotal - Trucks (PCE)		9	11	20	15	6	21	154
TOTAL PCE TRIPS GENERATED		**29**	**15**	**44**	**19**	**30**	**49**	**426**

Notes:
1. Traffic counts at project driveway (see Tables 1 to 5).
2. Green Bee Facility at 18890 Seaton Ave, Perris, CA 92570.
3. PCE = Passenger Car Equivalent



Figure 1
Project Location Map

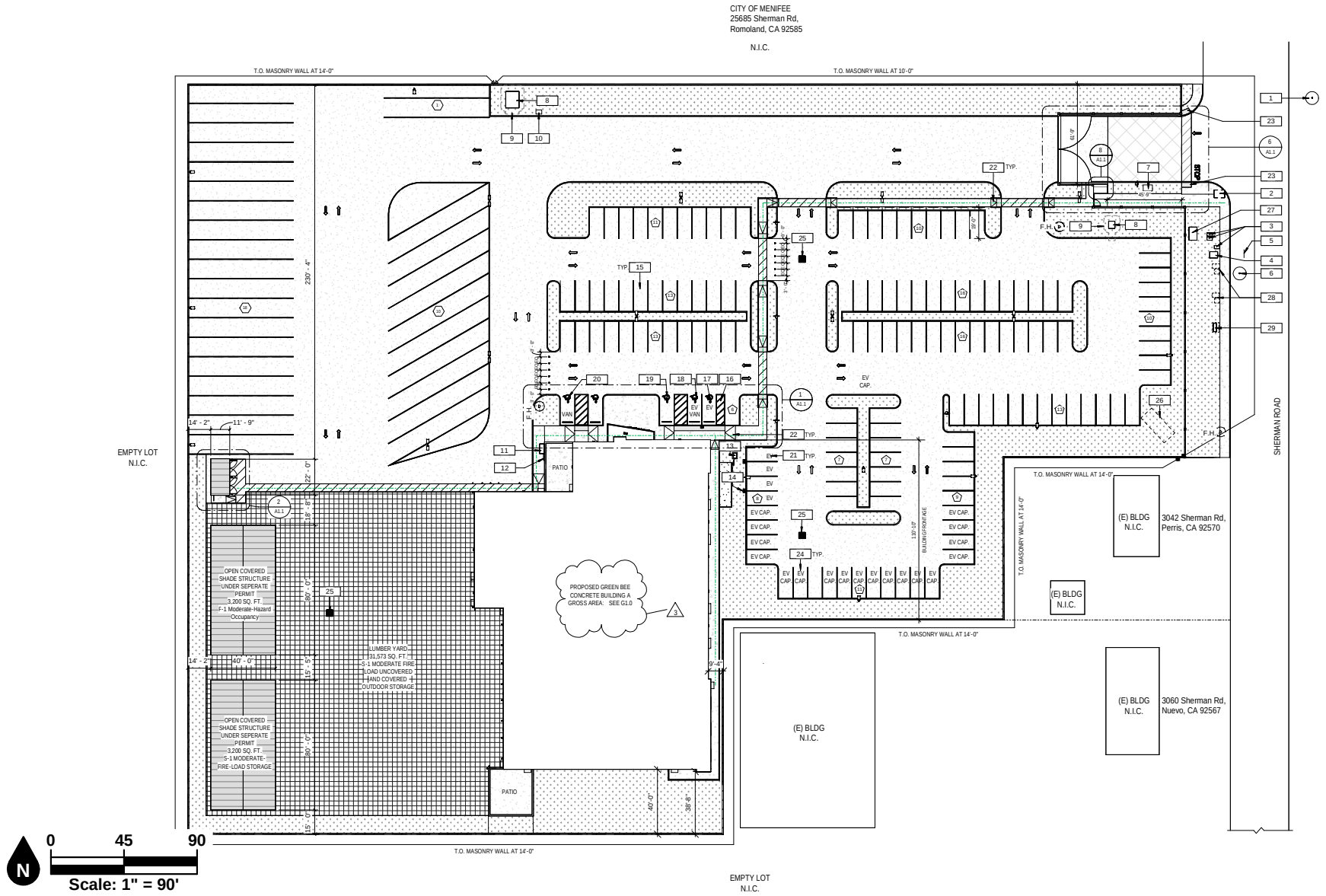


Figure 2
Site Plan

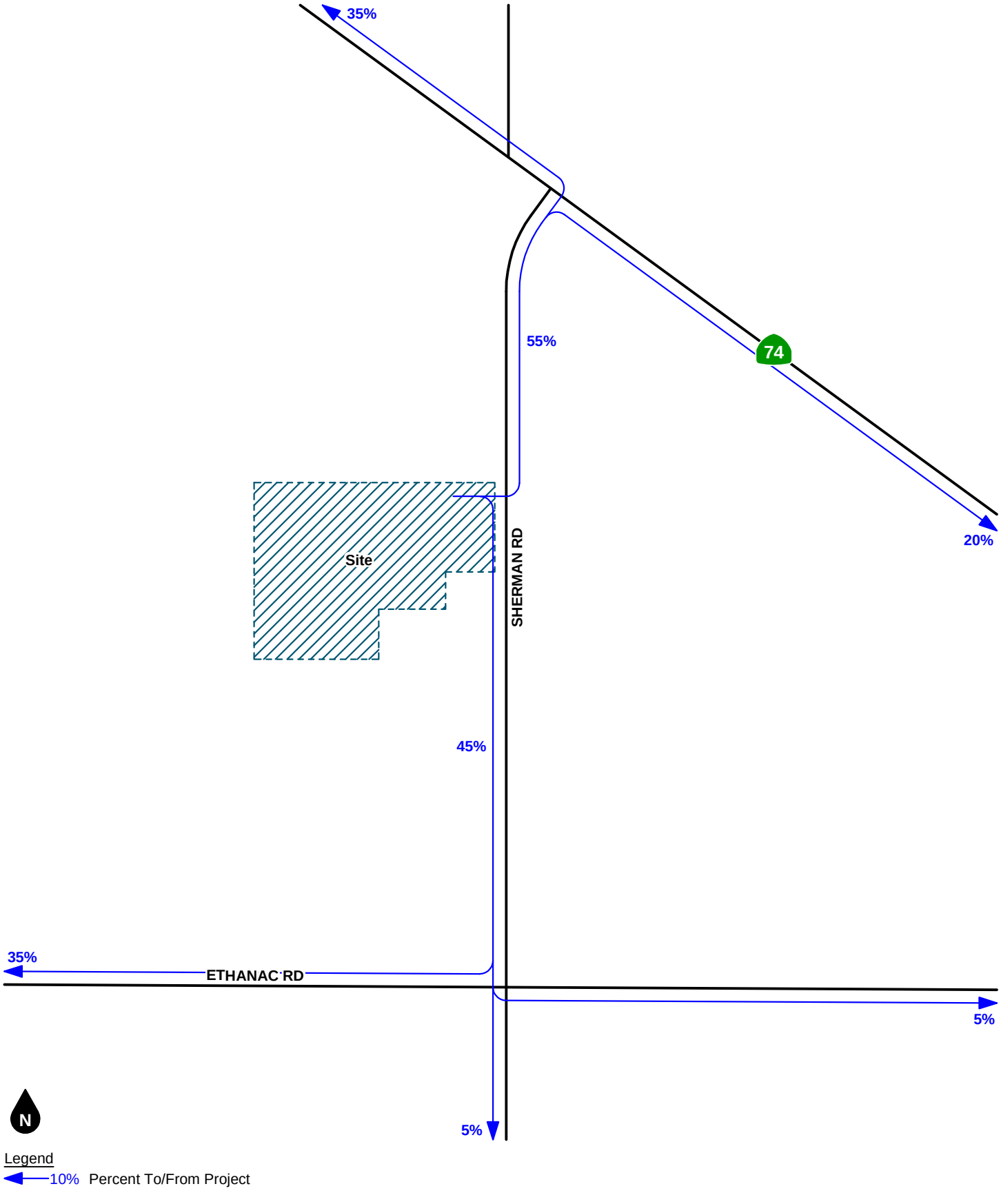


Figure 3
Project Trip Distribution - Passenger Cars

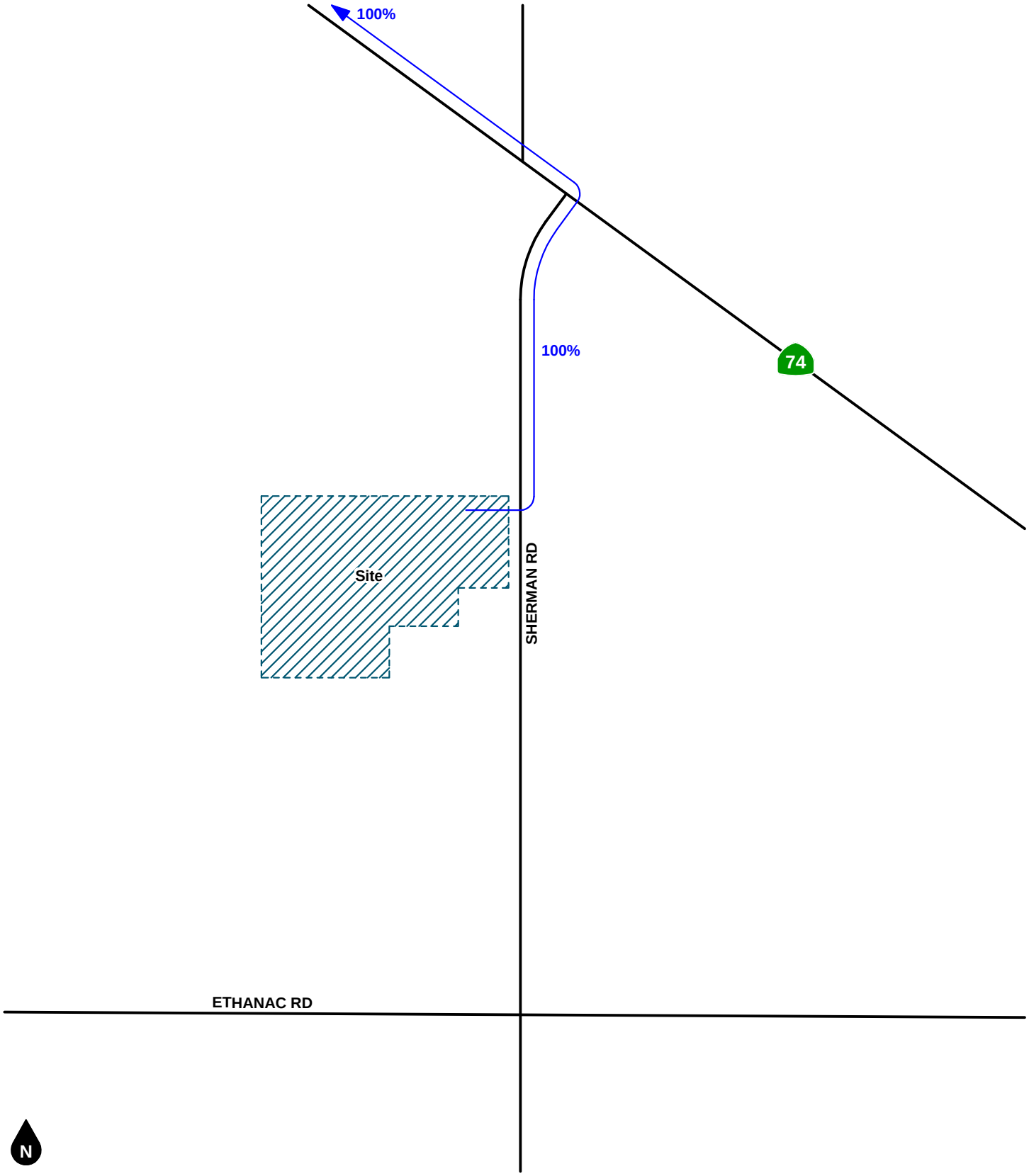


Figure 4
Project Trip Distribution - Trucks

ATTACHMENT A

VMT SCOPING FORM FOR LAND USE PROJECTS

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 for LOS and VMT* , dated April 2026.

I. Project Description

Tract/Case No. Preliminary Review 24-05118

Project Name: Green Bee Contractor Yard

Project Location: 25775 Sherman Road

Project Description: 25,0028 square feet of contractor yard
(Please attach a copy of the project Site Plan)

Current GP Land Use: LI - Light Industrial **Proposed GP Land Use:** LI - Light Industrial

Current Zoning: LI - Light Industrial **Proposed Zoning:** LI - Light Industrial

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

A. Is the Project 100% affordable housing? No

B. Is the Project within 1/2 mile of qualifying transit? No

C. Is the Project a local serving land use? No

D. Is the Project in a low VMT area? No

E. Are the Project's Net Daily Trips less than 500 ADT? Yes
Before PCE-adjustments, if applicable (i.e., actual vehicles)

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	17.3	VMT/Capita
Citywide Employment-Based VMT =	17.0	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project
1861	17.5	VMT/Employee	Non-Residential

[1] Base year (2018) projections from RIVCOM.

Trip Generation Evaluation:

Source of Trip Generation:

Project Trip Generation: 340 **Average Daily Trips (ADT)**

Internal Trip Credit:	No	% Trip Credit:	
Pass-By Trip Credit:	No	% Trip Credit:	
Affordable Housing Credit:	No	% Trip Credit:	
Existing Land Use Trip Credit:	No	Trip Credit:	

Net Project Daily Trips: 340 **Average Daily Trips (ADT)**
Before PCE-adjustments, if applicable (i.e., actual vehicles)

Does project trip generation warrant an LOS evaluation outside of CEQA? 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. However,it should be noted that the mitigation of existing TAZ VMT is not possible if the project also has a zonal VMT of 0.0 VMT per capita/employee.

No mitigation is required.

C. Is additional VMT modeling required to evaluate Project impacts?
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 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.

No modeling is required.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes: N/A

B. Unmitigated Project TAZ VMT Rate: N/A

C. Percentage Reduction Required to Achieve the Citywide Average VMT: N/A

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:

Project Location Setting

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
	Total VMT Reduction (%)	

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate: 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:	Gandinni Group, Inc.	**Company:**	MIG, INC.
Contact:	Bryan Crawford	**Contact:**	Cameron Hile
Address:	555 Parkcenter Drive, Suite 225, Santa Ana	**Address:**	1650 Spruce Street, Suite 106, Riverside
Phone:	(714) - 795-3100 x 104	**Phone:**	(951) 787-9222 x 8180
Email:	Bryan@ganddini.com	**Email:**	cameronh@migcom.com
Date:	5/22/2026	**Date:**	5/22/2026

Approved by:

Perris Planning Division	**Date**	**Perris City Engineer**	**Date**

Find address or place

Complete #1-4, Then Click "Run"

Input | Output

#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.**

Parcels (Zoom in to view)

#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.**

PA VMT Per Worker

#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.**

2026

#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.**

Below City Baseline (0%)

Help

Run

(1 of 3)

OBJECTID	2
Assessor Parcel Number (APN)	329240031
Traffic Analysis Zone (TAZ)	1861
Community Region	PERRIS
Inside a Transit Priority Area (TPA)	No
TAZ VMT	17.1
Jurisdiction VMT	16.8
% Difference	1.83%
VMT Metric	PA VMT Per Worker
Threshold	16.8
Community	0

Zoom to

Sherman Rd
Jackson Ave
74
Van Buren Ave
2nd St
Tyler Ave

200ft

-117.184 33.748 Degrees

Esri Community Maps Contributors, Loma Linda University,

ATTACHMENT B

OPERATION LETTER

PM DESIGN GROUP
38 Executive Park, Suite 310
Irvine, CA 92614

This letter is intended to clarify the project scope and operational characteristics of the proposed facility. This letter has been prepared by the project architect in coordination with the Owner, Green Bee Concrete, to accurately reflect the intended operations of the proposed facility. The operational information provided herein has been reviewed and confirmed by the Owner.

Overall Site Use

The proposed project is a commercial contractor operations facility located on a 5.49-acre site within a Limited Industrial (LI) zone. The development includes office space, garage/shop space, storage space, a rear lumber yard, covered shade structures, truck and equipment parking areas, employee parking, and associated site improvements.

The site is intended to support the daily operations of Green Bee Concrete as part of the relocation of its existing facility, including administrative functions, vehicle and equipment dispatch, contractor yard operations, storage of construction-related materials, and parking for employees, company vehicles, and equipment.

Relocation of Existing Operations

The proposed project represents the relocation of Green Bee Concrete's existing operations from the current Seaton Avenue facility. All operations will be transferred to the new site, and the existing facility will be vacated upon relocation.

The proposed development is intended to accommodate the same scale and type of operations currently conducted at the existing facility, with no expansion or intensification of use. The site layout provides a more organized and efficient configuration for these existing operations, including clearly defined areas for parking, circulation, storage, and yard activities.

Primary Site Functions

1. Office Area

The office area supports administrative and management functions, including executive offices, general offices, meeting space, break areas, restrooms, and related support spaces.

2. Garage / Shop Area

The garage/shop area consists of four (4) large bays designed to accommodate the size and maneuvering requirements of company-owned trucks. The overall area is driven by vehicle clearance, circulation, and staging needs rather than intensive repair operations.

The space is used for vehicle parking, staging, and light-duty inspection and diagnostic work only.

No heavy mechanical repair is performed within the shop. The facility does not include vehicle lifts, service pits, or trenches, and no large or fixed mechanical equipment is installed. Activities such as engine or transmission removal, fluid changes, or major servicing are not conducted on site and are performed off-site as needed.

The shop is not used for vehicle washing or servicing that would generate pollutants. The space functions as a covered vehicle staging and evaluation area, rather than a full-service repair facility.

3. Indoor Storage Facility

The storage facility is used for storage of:

- Rebar
- Anchor bolts
- Foundation hardware
- Foundation repair materials
- Small tools

4. Lumber Yard

The rear portion of the site includes a lumber yard used to support contractor operations. The lumber yard includes:

- Covered shade structures for lumber storage and limited lumber preparation
- Open Space area used for vehicular maneuvering, loading, and unloading
- Fire apparatus access road and turnaround
- Waste Management and Stormwater Protection

- Covered Trash Enclosure: The trash enclosure will be fully covered to minimize stormwater exposure to waste materials. By preventing direct contact with precipitation, the enclosure reduces the potential for pollutants such as oils, debris, and incidental waste to be transported by runoff.
- Covered 40-Yard Wood Recycling Bin: The 40-yard wood recycling bin will be located beneath the lumber preparation shade structure, providing full overhead coverage. This prevents stormwater contact with wood waste and eliminates the potential for contaminated runoff.

Outdoor storage is limited to the designated covered shade structures only.

The Open Space area is used exclusively for vehicular maneuvering, loading, and unloading and is not used for material storage, vehicle maintenance, equipment washing, or material staging.

No pollutant-generating activities are proposed within the Open Space area.

Yard Operations

Daily yard operations include:

1. Preparation of form boards and stakes for off-site use
2. Storage of Timberstrand (OSB) form boards
3. Storage of dimensional lumber and stakes
4. Dispatch of approximately 12 job-site delivery trucks per day, loaded by forklifts
5. Limited cutting of stakes and dimensional lumber (incidental to operations)
6. Collection and recycling of wood waste in a 40-yard bin
7. Daily circulation of:
    - Approximately 6 equipment transport trucks
    - Approximately 6 concrete pump trucks
8. Employee vehicle traffic of approximately 30 vehicles per day

All activities are consistent with standard contractor yard operations and occur within designated areas.

Vehicles Used

The facility accommodates a range of company vehicles, including:

- Freightliner M2 flatbed trucks
- Freightliner three-axle trucks
- Semi-truck and trailer combinations (up to approximately 65 feet in length)
- Concrete pump trucks
- Chevy 5500 service trucks
- Chevy 3500 and Colorado pickups

These vehicles are used for transport, loading, dispatch, and return operations only.

Parking and Vehicle Use

The site provides approximately 150 parking stalls for employees and staff.

In addition, designated areas are provided for:

- Truck parking
- Equipment parking
- Fleet staging

Vehicle circulation is organized to support safe and efficient movement between parking, yard, and loading areas.

Operational Characteristics

The site operates as a contractor yard and business facility where office, shop, storage, dispatch, and yard functions occur in a coordinated manner.

Daily activities include:

- Office and administrative operations
- Vehicle and equipment dispatch
- Vehicle staging and inspection

- Storage of contractor materials and tools
- Lumber storage and limited preparation
- Loading and unloading operations
- Employee and fleet parking

Site Circulation

Site circulation is designed to clearly separate and organize:

- Employee vehicle parking
- Truck and equipment parking
- Yard maneuvering and loading activity
- Fire apparatus access

The rear open space includes a designated fire apparatus access road and turnaround that is always maintained clear and unobstructed.

No storage, parking, or material staging is permitted within the fire access road or turnaround area.

Operational Clarifications

- There is no treatment of wood on site
- No treated lumber is stored or used on site
- There are no generators located within the yard
- Sawdust is periodically collected and disposed of in the 40-yard wood recycling bin
- No materials containing formaldehyde are used or stored on site
- There is no concrete ready-mix operation on site; Green Bee Concrete is not a ready-mix manufacturer

Hours of Operation

Typical operating hours are Monday through Friday, approximately 7:00 AM to 4:00 PM.

Approximate staffing includes:

PM DESIGN GROUP
38 Executive Park, Suite 310
Irvine, CA 92614

- 15 office employees (8:00 AM – 5:00 PM)
- 5 mechanics (8:00 AM – 5:00 PM)
- 15 yard employees (6:00 AM – 3:00 PM)

Conclusion

The proposed facility is designed as a controlled contractor operations site with clearly defined functional zones for office use, vehicle staging, storage, and yard operations.

Storage is limited to designated covered areas, and the Open Space area is maintained for vehicular maneuvering, loading, and fire access only. The site design supports efficient contractor operations while maintaining compliance with applicable fire access and stormwater requirements.

Sincerely,

PM Design Group, Inc.
Rami Dabliz

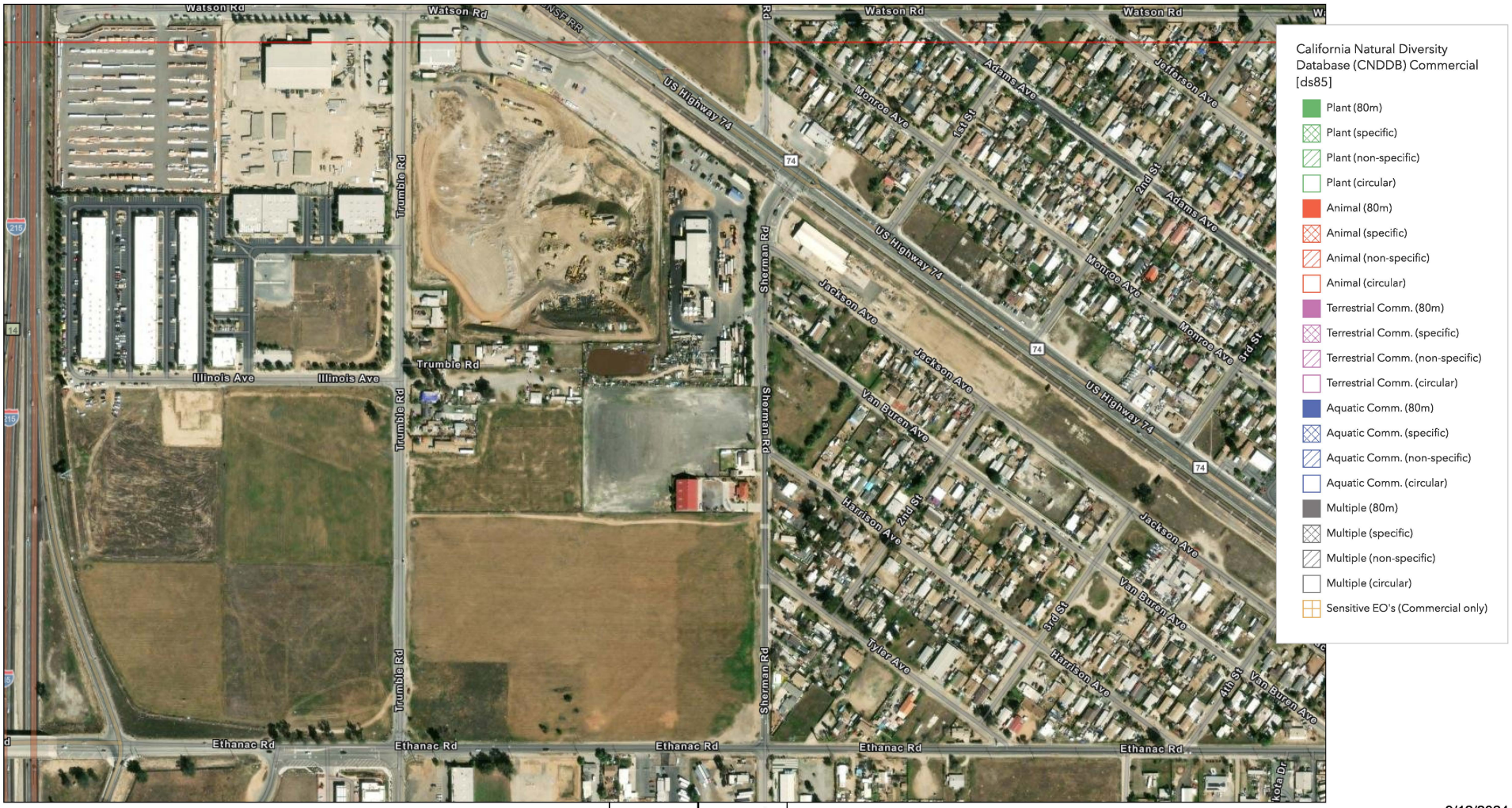
Project Manager

(949)315-7489
rdabliz@pmdginc.com

cc: Lee Quigley, Green Bee Concrete

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BIOS Map



9/12/2024

No species occurrences present in CNDDB.

Element_Type	Scientific_Name	Common_Name	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank
Animals - Amphibians	Spea hammondii	western spadefoot	Proposed Threatened	None	SSC	-
Animals - Birds	Accipiter cooperii	Coopers hawk	None	None	WL	-
Animals - Birds	Accipiter striatus	sharp-shinned hawk	None	None	WL	-
Animals - Birds	Aquila chrysaetos	golden eagle	None	None	FP | WL	-
Animals - Birds	Buteo regalis	ferruginous hawk	None	None	WL	-
Animals - Birds	Buteo swainsoni	Swainsons hawk	None	Threatened	-	-
Animals - Birds	Circus hudsonius	northern harrier	None	None	SSC	-
Animals - Birds	Elanus leucurus	white-tailed kite	None	None	FP	-
Animals - Birds	Eremophila alpestris actia	California horned lark	None	None	WL	-
Animals - Birds	Chaetura vauxi	Vauxs swift	None	None	SSC	-
Animals - Birds	Ardea alba	great egret	None	None	-	-
Animals - Birds	Ardea herodias	great blue heron	None	None	-	-
Animals - Birds	Egretta thula	snowy egret	None	None	-	-
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	None	None	-	-
Animals - Birds	Falco columbarius	merlin	None	None	WL	-
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	-	-
Animals - Birds	Spinus lawrencei	Lawrences goldfinch	None	None	-	-
Animals - Birds	Agelaius tricolor	tricolored blackbird	None	Threatened	SSC	-

Animals - Birds	Icteria virens	yellow-breasted chat	None	None	SSC	-
Animals - Birds	Lanius ludovicianus	loggerhead shrike	None	None	SSC	-
Animals - Birds	Setophaga petechia	yellow warbler	None	None	SSC	-
Animals - Birds	Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None	None	WL	-
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	None	None	SSC	-
Animals - Birds	Artemisiospiza belli belli	Bells sparrow	None	None	WL	-
Animals - Birds	Polioptila californica californica	coastal California gnatcatcher	Threatened	None	SSC	-
Animals - Birds	Numenius americanus	long-billed curlew	None	None	WL	-
Animals - Birds	Athene cunicularia	burrowing owl	None	None	SSC	-
Animals - Birds	Plegadis chihi	white-faced ibis	None	None	WL	-
Animals - Birds	Calypte costae	Costas hummingbird	None	None	-	-
Animals - Birds	Empidonax traillii	willow flycatcher	None	Endangered	-	-
Animals - Birds	Vireo bellii pusillus	least Bells vireo	Endangered	Endangered	-	-
Animals - Crustaceans	Streptocephalus woottoni	Riverside fairy shrimp	Endangered	None	-	-
Animals - Insects	Bombus crotchii	Crotchs bumble bee	None	Candidate Endangered	-	-

Animals - Insects	Bombus pensylvanicus	American bumble bee	None	None	-	-
Animals - Insects	Euphydryas editha quino	quino checkerspot butterfly	Endangered	None	-	-
Animals - Mammals	Neotoma lepida intermedia	San Diego desert woodrat	None	None	SSC	-
Animals - Mammals	Onychomys torridus ramona	southern grasshopper mouse	None	None	SSC	-
Animals - Mammals	Chaetodipus californicus femoralis	Dulzura pocket mouse	None	None	-	-
Animals - Mammals	Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None	None	-	-
Animals - Mammals	Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered	Endangered	SSC	-
Animals - Mammals	Dipodomys simulans	Dulzura kangaroo rat	None	None	-	-
Animals - Mammals	Dipodomys stephensi	Stephens kangaroo rat	Threatened	Threatened	-	-
Animals - Mammals	Perognathus longimembris brevinasus	Los Angeles pocket mouse	None	None	SSC	-
Animals - Mammals	Lepus californicus bennettii	San Diego black-tailed jackrabbit	None	None	-	-
Animals - Mammals	Eumops perotis californicus	western mastiff bat	None	None	SSC	-
Animals - Mammals	Lasiurus xanthinus	western yellow bat	None	None	SSC	-
Animals - Reptiles	Arizona elegans occidentalis	California glossy snake	None	None	SSC	-
Animals - Reptiles	Actinemys pallida	southwestern pond turtle	Proposed Threatened	None	SSC	-

Animals - Reptiles	Coleonyx variegatus abbotti	San Diego banded gecko	None	None	SSC	-
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	None	None	SSC	-
Animals - Reptiles	Aspidoscelis hyperythra	orange-throated whiptail	None	None	WL	-
Animals - Reptiles	Aspidoscelis tigris stejnegeri	coastal whiptail	None	None	SSC	-
Animals - Reptiles	Crotalus ruber	red-diamond rattlesnake	None	None	SSC	-
Community - Terrestrial	Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	None	None	-	-
Community - Terrestrial	Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	None	None	-	-
Plants - Vascular	Allium munzii	Munzs onion	Endangered	Threatened	-	1B.1
Plants - Vascular	Centromadia pungens ssp. laevis	smooth tarplant	None	None	-	1B.1
Plants - Vascular	Deinandra paniculata	paniculate tarplant	None	None	-	4.2
Plants - Vascular	Lasthenia glabrata ssp. coulteri	Coulters goldfields	None	None	-	1B.1
Plants - Vascular	Microseris douglasii ssp. platycarpha	small-flowered microseris	None	None	-	4.2
Plants - Vascular	Harpagonella palmeri	Palmers grapplinghook	None	None	-	4.2

Plants - Vascular	Caulanthus simulans	Paysons jewelflower	None	None	-	4.2
Plants - Vascular	Lepidium virginicum var. robinsonii	Robinsons pepper-grass	None	None	-	4.3
Plants - Vascular	Convolvulus simulans	small-flowered morning-glory	None	None	-	4.2
Plants - Vascular	Juglans californica	southern California black walnut	None	None	-	4.2
Plants - Vascular	Orcuttia californica	California Orcutt grass	Endangered	Endangered	-	1B.1
Plants - Vascular	Navarretia fossalis	spreading navarretia	Threatened	None	-	1B.1
Plants - Vascular	Chorizanthe leptotheca	Peninsular spineflower	None	None	-	4.2
Plants - Vascular	Chorizanthe parryi var. parryi	Parrys spineflower	None	None	-	1B.1
Plants - Vascular	Chorizanthe polygonoides var. longispina	long-spined spineflower	None	None	-	1B.2
Plants - Vascular	Myosurus minimus ssp. apus	little mousetail	None	None	-	3.1
Plants - Vascular	Brodiaea filifolia	thread-leaved brodiaea	Threatened	Endangered	-	1B.1

IPaC **U.S. Fish & Wildlife Service**

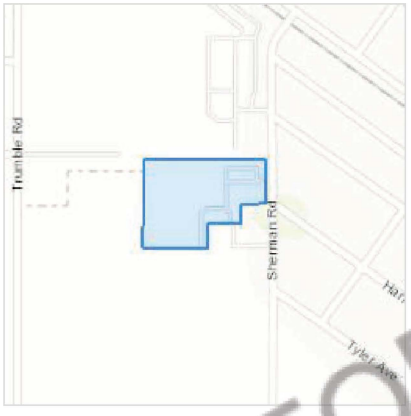
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Riverside County, California



Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat Dipodomys merriami parvus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat Dipodomys stephensi (incl. D. cascus) Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3495	Threatened

NOT FOR CONSULTATION

Birds

NAME	STATUS
Coastal California Gnatcatcher Polioptila californica californica Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered

Reptiles

NAME	STATUS
Southwestern Pond Turtle Actinemys pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

Amphibians

NAME	STATUS
Western Spadefoot Spea hammondii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate
Quino Checkerspot Butterfly Euphydryas editha quino (=E. e. wrighti) Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5900	Endangered

Crustaceans

NAME	STATUS
Riverside Fairy Shrimp Streptocephalus woottoni Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8148	Endangered

NOT FOR CONSULTATION

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/498

Flowering Plants

NAME	STATUS

California Orcutt Grass Orcuttia californica — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4923

Munz's Onion Allium munzii — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/2951

Nevin's Barberry Berberis nevinii — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/8025

San Diego Ambrosia Ambrosia pumila — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/8287

San Jacinto Valley Crownscale Atriplex coronata var. notatior — Endangered
Wherever found
There is **final** critical habitat for this species. However, no *actual* acres or miles were designated due to exemptions or exclusions. See Federal Register publication for details.
https://ecos.fws.gov/ecp/species/4353

Slender-horned Spineflower Dodecahema leptoceras — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4007

Spreading Navarretia Navarretia fossalis — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/1334

Thread-leaved Brodiaea Brodiaea filifolia — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/6087

NOT FOR CONSULTATION

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

NOT FOR CONSULTATION

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

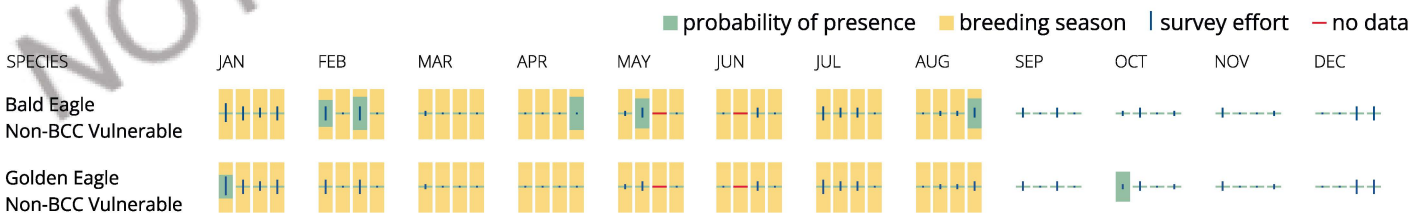
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

NOT FOR CONSULTATION

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31

NOT FOR CONSULTATION

Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole *Icterus bullockii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
California Thrasher *Toxostoma redivivum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch *Spinus lawrencei* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Mountain Plover *Charadrius montanus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638	Breeds elsewhere
Northern Harrier *Circus hudsonius* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8350	Breeds Apr 1 to Sep 15
Nuttall's Woodpecker *Dryobates nuttallii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20

NOT FOR CONSULTATION

Santa Barbara Song Sparrow Melospiza melodia graminea — Breeds Mar 1 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/5513

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

NOT FOR CONSULTATION

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention

because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty

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about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Multiple Species Habitat Conservation Plan (MSHCP) Report

Area of Interest (AOI) Information

Area : 5.46 acres

Sep 12 2024 11:23:19 Pacific Daylight Time



MSHCP Parcel Report

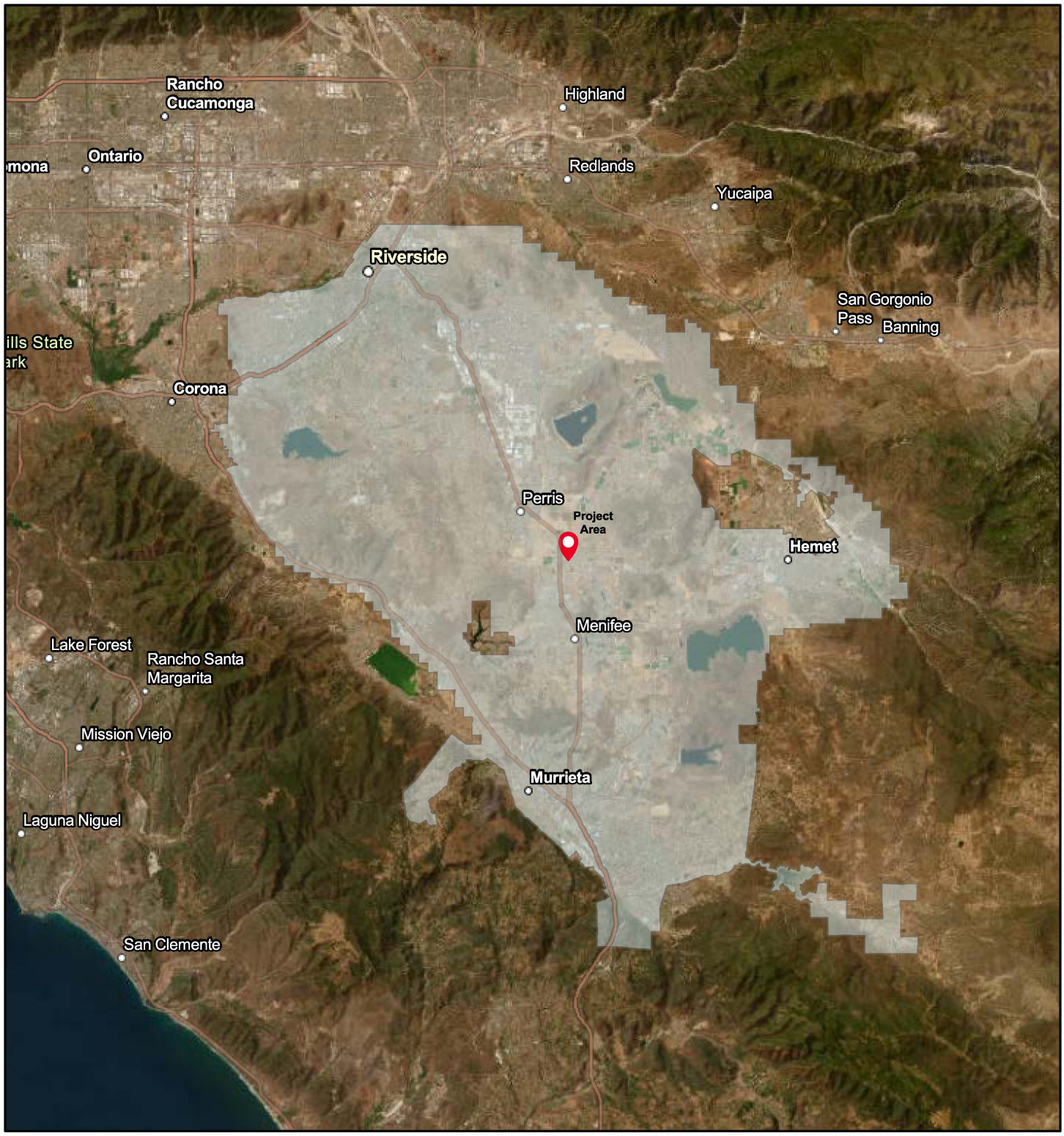
#	APN	Street Number	Street Direction	Street Name	Street Type	Street Suffix	Unit Number	City
1	329240028	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
2	329240031	25,775	*No Data*	SHERMAN	RD	*No Data*	*No Data*	PERRIS

#	ZIP Code	Assessed Acreage	Rough Step Number	Criteria Cell Number	Criteria Cell Group	Area Plan	Area Plan Subunit	Habitat Management Unit
1	*No Data*	1.00	3	*No Data*	*No Data*	*No Data*	*No Data*	SAN JACINTO
2	92570	4.49	3	*No Data*	*No Data*	*No Data*	*No Data*	SAN JACINTO

#	Amphibian Survey	Burrowing Owl Survey	Criteria Area Species Survey (Part 1)	Criteria Area Species Survey (Part 2)	Delhi Sands Flower-Loving Fly Survey	Mammal Survey	Narrow Endemic Plant Survey (Part 1)	Narrow Endemic Plant Survey (Part 2)	Area(acres)
1	Not in an amphibian survey area	Not in a burrowing owl survey area	Not in a criteria area species survey area	*No Data*	Not in a Delhi Sands Flower-loving Fly survey area	Not in a mammal survey area	Not in a narrow endemic plant survey area	*No Data*	0.97
2	Not in an amphibian survey area	Not in a burrowing owl survey area	Not in a criteria area species survey area	*No Data*	Not in a Delhi Sands Flower-loving Fly survey area	Not in a mammal survey area	Not in a narrow endemic plant survey area	*No Data*	4.49

This map and report was prepared by the Western Riverside County Regional Conservation Authority. Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. Parcel shape, size, and spatial location provided by County of Riverside Assessors-County Clerk-Recorders.
The RCA makes no warranty or guarantee as to the content, accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

Stephen's Kangaroo Rat Fee Area



9/12/2024

1:601,942

0 4.25 8.5 17 mi

0 5 10 20 km

Earthstar Geographics, County of Riverside, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands



September 12, 2024

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Romoland (3311762) OR Steele Peak (3311773) OR Perris (3311772) OR Lakeview (3311771) OR Lake Elsinore (3311763) OR Winchester (3311761) OR Wildomar (3311753) OR Murrieta (3311752) OR Bachelor Mtn. (3311751))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Actinemys pallida southwestern pond turtle	ARAAD02032	Proposed Threatened	None	G2G3	SNR	SSC
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S4	WL
Allium marvinii Yucaipa onion	PMLIL02330	None	None	G1	S1	1B.2
Allium munzii Munz's onion	PMLIL022Z0	Endangered	Threatened	G1	S1	1B.1
Almutaster pauciflorus alkali marsh aster	PDASTEL010	None	None	G4	S1S2	2B.2
Ambrosia pumila San Diego ambrosia	PDAST0C0M0	Endangered	None	G1	S1	1B.1
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2	SSC
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos rainbowensis Rainbow manzanita	PDERI042T0	None	None	G2	S2	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Asio otus long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus pachypus var. jaegeri Jaeger's milk-vetch	PDFAB0F6G1	None	None	G4T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Atriplex coronata var. notatior San Jacinto Valley crownscale	PDCHE040C2	Endangered	None	G4T1	S1	1B.1
Atriplex parishii Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Ayenia compacta California ayenia	PDSTE01020	None	None	G4	S3	2B.3
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S1	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Brodiaea santarosae Santa Rosa Basalt brodiaea	PMLIL0C0G0	None	None	G1	S1	1B.2
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T3	S3	1B.2
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S2	SSC
Caulanthus simulans Payson's jewelflower	PDBRA0M0H0	None	None	G4	S4	4.2
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Chaetodipus californicus femoralis Dulzura pocket mouse	AMAFD05021	None	None	G5T3	S3	
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Cicindela senilis frosti senile tiger beetle	IICOL02121	None	None	G2G3T1T3	S1	
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Clinopodium chandleri San Miguel savory	PDLAM08030	None	None	G2G3	S2	1B.2
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T5	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cryptantha wigginsii Wiggins' cryptantha	PDBOR0A400	None	None	G2	S1	1B.2
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	Endangered	G5T1	S1	SSC
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Threatened	Threatened	G2	S3	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eryngium aristulatum var. parishii San Diego button-celery	PDAPI0Z042	Endangered	Endangered	G5T1	S1	1B.1
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G4G5T1T2	S1S2	
Geothallus tuberosus Campbell's liverwort	NBHEP1C010	None	None	G2	S2	1B.1
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Hesperocyparis forbesii Tecate cypress	PGCUP040C0	None	None	G2	S2	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S4	SSC
Juncus luciensis Santa Lucia dwarf rush	PMJUN013J0	None	None	G3	S3	1B.2
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	
Lilium parryi lemon lily	PMLIL1A0J0	None	None	G3	S3	1B.2
Limnanthes alba ssp. parishii Parish's meadowfoam	PDLIM02052	None	Endangered	G4T2	S2	1B.2
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Linderiella santarosae Santa Rosa Plateau fairy shrimp	ICBRA06020	None	None	G1G2	S1	
Monardella hypoleuca ssp. intermedia intermediate monardella	PDLAM180A4	None	None	G4T2?	S2?	1B.3
Myosurus minimus ssp. apus little mousetail	PDRAN0H031	None	None	G5T2Q	S2	3.1
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Navarretia fossalis spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
Neolarra alba white cuckoo bee	IIHYM81010	None	None	GH	SH	
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
Onychomys torridus ramona southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T2	S1S2	SSC
Perognathus longimembris internationalis Jacumba pocket mouse	AMAFD01044	None	None	G5T2T3	S2	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S3	SSC
Scutellaria bolanderi ssp. austromontana southern mountains skullcap	PDLAM1U0A1	None	None	G4T3	S3	1B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3	SSC
Sibaropsis hammittii Hammitt's clay-cress	PDBRA32010	None	None	G2	S2	1B.2
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Socalchemmis icenoglei Icenogle's socalchemmis spider	ILARAU7020	None	None	G1	S1	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Interior Basalt Flow Vernal Pool Southern Interior Basalt Flow Vernal Pool	CTT44310CA	None	None	G1	S1.2	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
Sphaerocarpos drewiae bottle liverwort	NBHEP35030	None	None	G1	S1	1B.1
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S2	
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Texosporium sancti-jacobi woven-spored lichen	NLTEST7980	None	None	G3	S2	3
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Thamnophis sirtalis pop. 1 south coast gartersnake	ARADB3613F	None	None	G5T1T2	S1S2	SSC
Tortula californica California screw moss	NBMUS7L090	None	None	G2G3	S2?	1B.2
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 116

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HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

ASSESSOR'S PARCEL NUMBERS 329-240-028 AND -031

25775 Sherman Road
City of Perris, Riverside County, California

For Submittal to:

Development Services Department, Planning Division
City of Perris
135 North D Street
Perris, CA 92570

Prepared for:

MIG, Inc.
1650 Spruce Street, Suite 106
Riverside, CA 92507

Prepared by:

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

December 5, 2024
CRM TECH Project No. 4167A

Title: Cultural Resources Survey Report: Assessor's Parcel Numbers 329-240-028 and -031, City of Perris, Riverside County, California

Author(s): Bai "Tom" Tang, Principal Investigator
Deirdre Encarnación, Archaeologist/Report Writer
Salvadore Boites, Archaeologist/Field Surveyor

Consulting Firm: CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: December 5, 2024

For Submittal to: Development Services Department, Planning Division
City of Perris
135 North D Street
Perris, CA 92570
(951) 943-5003

Prepared for: Bob Prasse, Director of Environmental Services
MIG, Inc.
1650 Spruce Street, Suite 106
Riverside, CA 92507
(951) 787-9222

USGS Quadrangle: Romoland, Calif., 7.5' quadrangle (Section 10, T5S R3W, San Bernardino Baseline and Meridian)

Project Size: Approximately 5.5 acres

Keywords: Perris Valley area; Phase I historical/archaeological resources survey; no "historical resource" under CEQA provisions

EXECUTIVE SUMMARY

Between August and December 2024, at the request of MIG, Inc., CRM TECH performed a cultural resources study on approximately 5.5 acres of vacant land in the City of Perris, Riverside County, California. The subject property of the study, Assessor's Parcel Numbers 329-240-028 and -031, is located at 25775 Sherman Road, on the west side of Sherman Road and near its intersection with Harrison Avenue. The location lies in the southwest quarter of Section 10, Township 5 South, Range 3 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey Romoland, California, 7.5' quadrangle.

The study is part of the environmental review process for the Green Bee Contractor's Yard Project, which proposes to construct a 25,028-square-foot office building and a 43,470-square-foot lumber yard with shade structures, parking spaces, and a detention basin. The City of Perris, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or near the project area.

In order to identify such resources, CRM TECH reviewed the results of recent cultural resources records searches completed in the project vicinity, initiated a Native American Sacred Lands File search, contacted pertinent local Native American representatives, pursued historical background research, and carried out an intensive-level field survey. Through the various avenues of research, this study did not encounter any potential "historical resources" within the project area.

Outside but adjacent to the project boundary, the segment of segment of Sherman Road near the project location is considered an extension of Site 33-020502, which consists of another segment of the road that was previously recorded elsewhere. As a working component of the modern transportation infrastructure, however, the current configuration and appearance of Sherman Road at this location reflect much more the result of upgrading and maintenance during the most recent decades. As such, this segment of Sherman Road demonstrates no potential to qualify as a "historical resource," nor does it contribute to the potential significance of Site 33-020502 as a whole.

Based on these findings, CRM TECH concludes that no "historical resources" is known to be present within or adjacent to the project area and, accordingly, recommends to the City of Perris a finding of *No Impact* on "historical resources." No further cultural resources investigation is recommended for this project unless development plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are discovered during any earth-moving operations associated with the project, all work in the immediate vicinity should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
INTRODUCTION 1
SETTING 4
Current Natural Setting 4
Cultural Setting 5
Prehistoric Context 5
Ethnohistoric Context 5
Historic Context 7
RESEARCH METHODS 8
Records Search 8
Native American Participation 8
Historical Research 8
Field Survey 9
RESULTS AND FINDINGS 9
Records Search 9
Native American Participation 10
Historical Research 10
Field Survey 11
DISCUSSION 12
CONCLUSION AND RECOMMENDATIONS 13
REFERENCES 14
APPENDIX 1: Personnel Qualifications 17
APPENDIX 2: Sacred Lands File Search Results 21

LIST OF FIGURES

Figure 1. Project vicinity 1
Figure 2. Project location 2
Figure 3. Recent satellite image of the project area. 3
Figure 4. Overview of the current natural setting of the project area 4
Figure 5. The project area and vicinity in 1853-1865 11
Figure 6. The project area and vicinity in 1897-1898 11
Figure 7. The project area and vicinity in 1939 12
Figure 8. The project area and vicinity in 1951 12

INTRODUCTION

Between August and December 2024, at the request of MIG, Inc., CRM TECH performed a cultural resources study on approximately 5.5 acres of vacant land in the City of Perris, Riverside County, California (Fig. 1). The subject property of the study, Assessor's Parcel Numbers 329-240-028 and -031, is located at 25775 Sherman Road, on the west side of Sherman Road and near its intersection with Harrison Avenue. The location lies in the southwest quarter of Section 10, Township 5 South, Range 3 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey (USGS) Romoland, California, 7.5' quadrangle (Figs. 2, 3).

The study is part of the environmental review process for the Green Bee Contractor's Yard Project, which proposes to construct a 25,028-square-foot office building and a 43,470-square-foot lumber yard with shade structures, parking spaces, and a detention basin. The City of Perris, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000 et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or near the project area.

In order to identify such resources, CRM TECH reviewed the results of recent cultural resources records searches completed in the project vicinity, initiated a Native American Sacred Lands File search, contacted pertinent local Native American representatives, pursued historical background research, and carried out an intensive-level field survey. The following report is a complete account of the methods, results, and conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

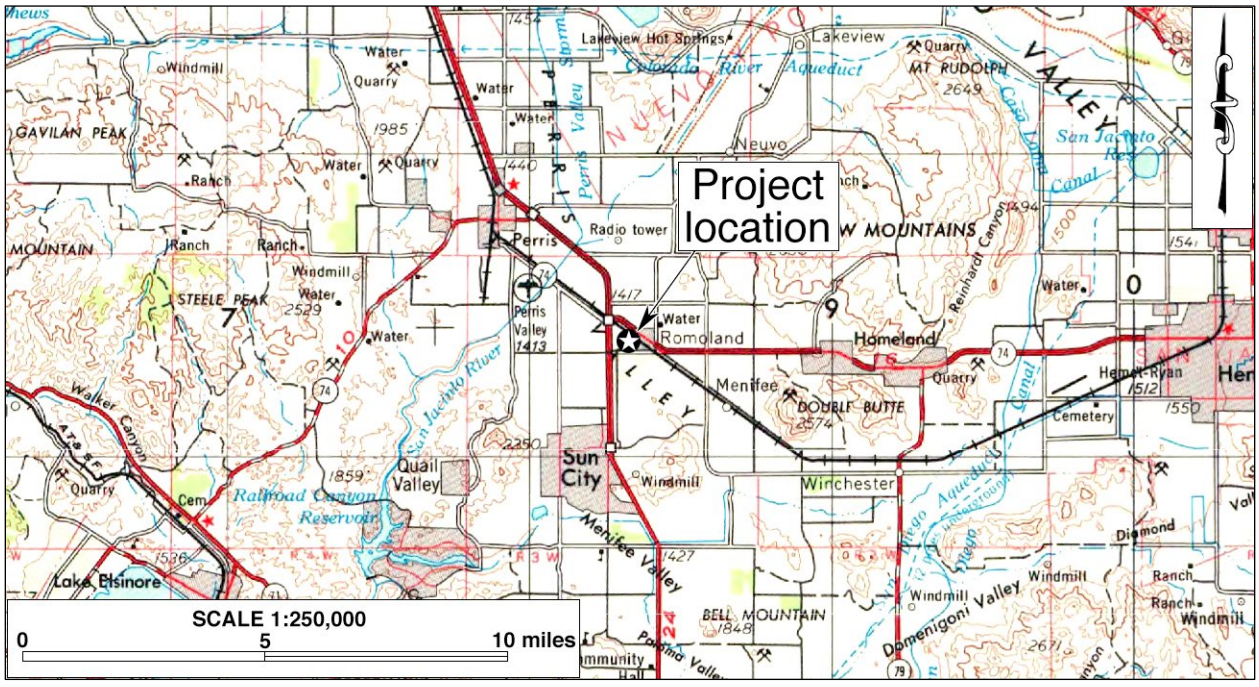


Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 120'x60' quadrangle [USGS 1979a])

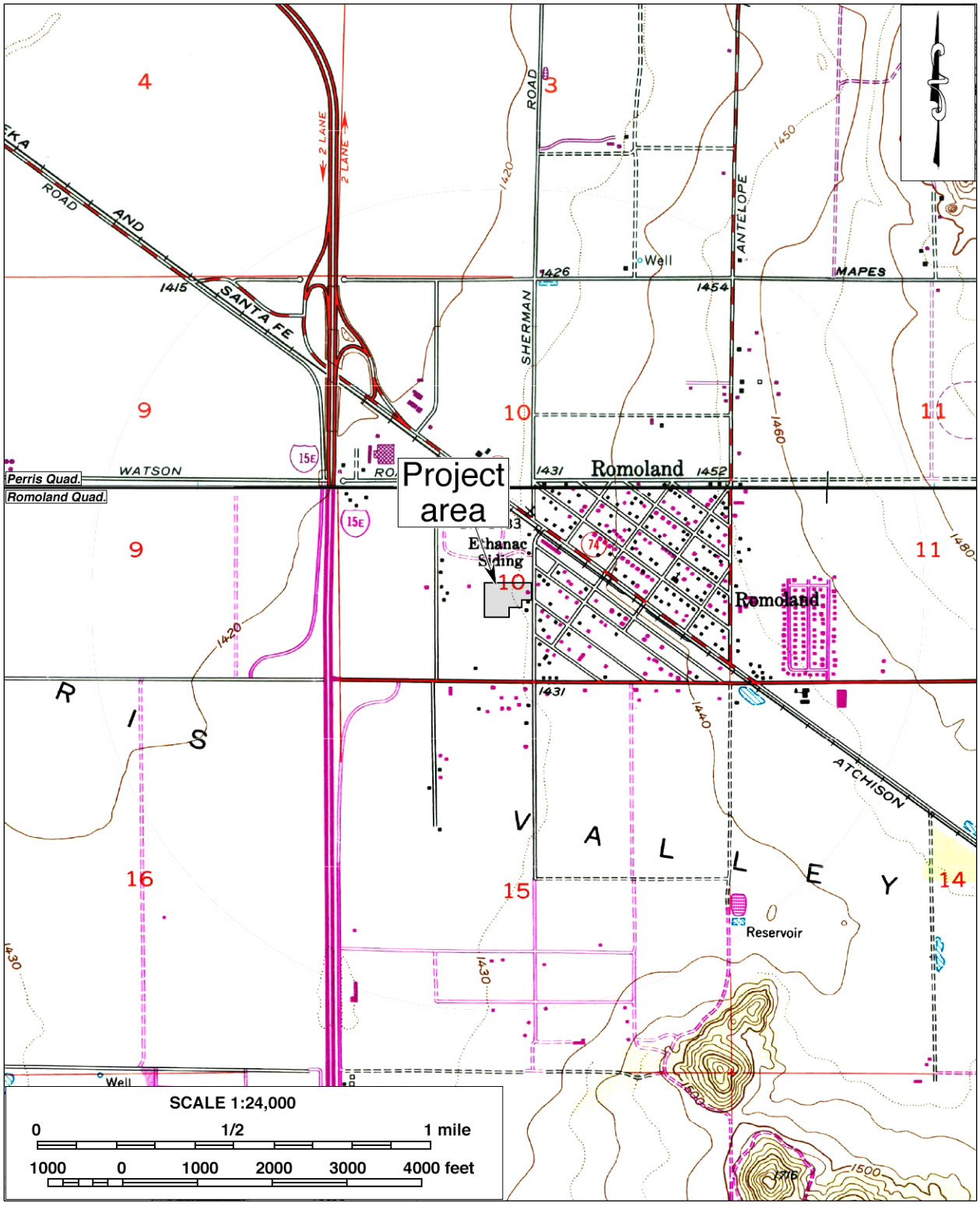


Figure 2. Project location. (Based on USGS Perris and Romoland, Calif., 7.5' quadrangles [USGS 1979b; 1979c])



Figure 3. Recent satellite image of the project area.

SETTING

CURRENT NATURAL SETTING

The City of Perris is located in the Perris Valley, a semi-arid inland alluvial valley in western Riverside County that extends generally in a northwest-southeast direction. A number of isolated granitic mountains, such as the Lakeview Mountains and the Bernasconi Hills, separate the Perris Valley from the nearby Moreno, San Jacinto, and Menifee Valleys. These valleys are sub-basins of the San Jacinto watershed, one of the three major geographical subdivisions of the Santa Ana Basin. This valley complex is bounded on the northeast by the San Jacinto Mountains and on the southwest by the Santa Ana Mountains. The climate and environment of the region are typical of southern California's inland valleys, with temperatures in the region reaching over 100 degrees Fahrenheit in summer and dipping to near freezing in winter. The average annual precipitation is approximately 12 inches, most of which occurs between December and March.

The project area lies on the southeastern edge of the Perris city limits and adjacent to the small community of Romoland, which is now a part of the neighboring City of Menifee. The surrounding area has undergone some commercial, industrial, and residential development in recent decades but still remains largely rural in character. The irregularly-shaped project area is bounded by Sherman Road to the east, a grease processing company on the north, a small residential neighborhood on the west, and a residence and two businesses on the south, interspersed with parcels of vacant land (Fig. 3). The terrain in the project area is relatively level, and the elevations range roughly around 1,435 feet above mean sea level. The surface soil has been completely disturbed, and most of the property is currently covered with dilapidated asphalt. The sparse vegetation remaining on site includes jimsonweed, tumbleweed, and ruderal grasses (Fig. 4).



Figure 4. Overview of the current natural setting of the project area. (Photograph taken on October 2, 2024; view to the southwest)

CULTURAL SETTING

Prehistoric Context

The earliest evidence of human occupation in western Riverside County was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, southeast of the project area, with radiocarbon dates clustering around 9,500 B.P. (Horne and McDougall 2008). Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8,000 and 9,000 B.P. (Grenda 1997). Additional sites with isolated Archaic dart points, bifaces, and other associated lithic artifacts from the same age range have been found in the nearby Cajon Pass area of San Bernardino County, to the northwest, typically atop knolls with good viewsheds (Basgall and True 1985; Goodman and McDonald 2001; Goodman 2002; Milburn et al. 2008).

The cultural prehistory of southern California has been summarized into numerous chronologies, including those developed by Chartkoff and Chartkoff (1984), Warren (1984), and others. Specifically, the prehistory of western Riverside County has been addressed by O'Connell et al. (1974), McDonald et al. (1987), Keller and McCarthy (1989), Grenda (1993), Goldberg (2001), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural horizons vary regionally, the general framework of the prehistory of western Riverside County can be divided into three primary periods:

- Paleoindian Period (ca. 12,500-9,000 B.P.): Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.
- Archaic Period (ca. 9,000-1,500 B.P.): Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- Late Prehistoric Period (ca. 1,500 B.P.-contact): Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

Ethnohistoric Context

According to current ethnohistorical scholarship, the traditional territories of several Native American groups, including the Luiseño, the Serrano, the Gabrielino, and the Cahuilla, overlapped one another in the present-day Riverside-San Bernardino region during the Late Prehistoric Period, but the Perris Valley area is generally recognized as a part of the traditional homeland of the Luiseño, a Takic-speaking people whose territory extended from present-day Riverside to Escondido

and Oceanside. The name of the group derived from Mission San Luis Rey, which held jurisdiction over most of the traditional Luiseño territory during the late 18th and early 19th centuries. In modern anthropological literature, the leading sources on Luiseño culture and history are Kroeber (1925), Strong (1929), and Bean and Shipek (1978). The following ethnohistoric discussion is based primarily on these sources.

The name Luiseño derived from Mission San Luis Rey, which held jurisdiction over most of the Luiseño territory during the Mission Period. Prior to European contact, the Luiseño may have been known as *Puyumkowitchum*, or "Western people." Luiseño history, as recorded in traditional songs, tells the creation story from the birth of the first people, the *kaamalam*, to the sickness, death, and cremation of *Wiyoot*, the most powerful and wise one, at Lake Elsinore. The Luiseño society was based on autonomous lineages or kin groups, which represented the basic political unit among most southern California Indians. Each Luiseño lineage possessed a permanent base camp, or village, on the valley floor and another in the mountain regions for acorn collection. Luiseño villages were made up of family members and relatives, usually located in sheltered canyons or near year-round sources of water, always in proximity to subsistence resources.

Luiseño subsistence was defined by the surrounding landscape, exploiting nearly all of the resources available in a highly developed seasonal mobility system, including cultivating and gathering wild plants, fishing, and hunting. They collected seeds, roots, wild berries, acorns, wild grapes, strawberries, wild onions, and prickly pear cacti, and hunted deer, elks, antelopes, rabbits, wood rats, and a variety of insects. Bows and arrows, rabbit sticks, traps, nets, clubs, and slings were the main hunting tools. Each lineage had exclusive hunting and gathering rights in their procurement ranges. These boundaries were respected and only crossed with permission.

As the landscape defined their subsistence practices, the tending and cultivation practices of the Luiseño helped shape the landscape. The practice of controlled burning of chaparral and oak woodland areas created an open countryside with more accessible foraging material for animals, which in turn led to more successful hunting. It also increased the ease with which plant foods could be gathered and prevented out-of-control wildfires by eliminating dead undergrowth before it accumulated to dangerous levels. Coppicing, or trimming plants to the ground, resulted in straighter growth for basketry and arrow-making materials. Granitic outcroppings were used for pounding and grinding nuts and seeds, which left their mark in the resulting bedrock milling features, the most common archaeological remains found in the region.

It is estimated that when Spanish colonization of Alta California began in 1769, the Luiseño had approximately 50 active villages with an average population of 200 each, although other estimates place the total Luiseño population at 4,000-5,000 (Bean and Shipek 1978:557). Some of the villages were forcefully moved to the Spanish missions, while others were largely left intact. Ultimately, Luiseño population declined rapidly after European contact because of harsh living conditions at the missions and, later, on the Mexican ranchos, where the Native people often worked as seasonal ranch hands, as well as diseases such as smallpox.

After the American annexation of Alta California, the large number of non-Native settlers further eroded the foundation of traditional Luiseño society. During the latter half of the 19th century, almost all of the remaining Luiseño villages were displaced, their occupants eventually removed to

the various reservations including Soboba, Pechanga, and Pala. Currently, language and ceremonies are being revitalized, and some groups have taken to using ethnographic terms such as *Puyumkowitchum* to refer to themselves

Historic Context

In California, the so-called "historic period" began in 1769, when an expedition sent by the Spanish authorities in Mexico founded Mission San Diego, the first European outpost in Alta California. For several decades after that, however, Spanish colonization activities were largely confined to the coastal regions and left mostly indirect impact on the arid hinterland of the territory. Although the first explorers, including Pedro Fages and Juan Bautista de Anza, traveled through the Perris and San Jacinto Valleys as early as 1772-1774 (Beck and Haase 1974:15), no Europeans were known to have settled in the vicinity until the beginning of the 19th century.

During much of the Spanish and Mexican Periods in California history, the Perris Valley was nominally under the control of Mission San Luis Rey, which was established near present-day Oceanside in 1798. By 1821, it had become a part of the loosely defined Rancho San Jacinto, a vast cattle ranch for that mission, the name of which was first mentioned in mission records in 1821 (Gunther 1984:467). The rancho was headquartered on a small hill near the Lakeview Mountains, where an adobe house for the *mayordomo*, known in later years as Casa Loma, was built sometime before 1827 (*ibid.*:102; Hudson 1989:19).

In the 1840s, after secularization of the mission system, the Mexican government issued three large land grants on the former mission rancho of San Jacinto (Beck and Haase 1974:38). As elsewhere in southern California during the rancho period, cattle raising was the most prevalent economic activity on these and other nearby land grants, until the influx of American settlers eventually brought an end to this now-romanticized lifestyle in the second half of the 19th century. The nearest among them to present-day Perris was Rancho San Jacinto Nuevo y Potrero, granted to Miguel de Pendrorena, a merchant in San Diego, in 1846, just a few months before the American occupation of California (Gunther 1984:466). The project area was not included in any of these land grants, and thus remained unclaimed public land at the time of the American annexation.

In 1882-1883, the Perris Valley received a major boost in its early development when the California Southern Railway was constructed through the area, to be connected to the Atchison, Topeka and Santa Fe Railway's nationwide system a few years later. In a scenario repeated frequently in the American West, a string of towns soon emerged along the railroad line. The town of Perris was founded in 1886, and named in honor of Frederick Thomas Perris, the California Southern Railway's chief engineer and superintendent of construction (Gunther 1984:385). In 1893, with the creation of Riverside County, Perris was designated as one of the 12 original judicial townships (*ibid.*:120). On May 16, 1911, Perris was incorporated as the sixth city in the county.

Closer to the project location, the community of Romoland traces its roots to the 1910s, when enough settlers had gathered in the area to warrant the establishment of a schoolhouse in 1918 (MVHA 2016). In 1925, the Pacific Mutual Life Insurance Company of California launched the Romola Farms subdivision and offered small farms of four to five acres for sale (Gunther 1984:436). The success of the project caused the nearby Ethanac post office to be renamed in 1926, when the

name Romoland was coined for the area to avoid confusion with the Romona post office in San Diego County (*ibid.*).

Until the recent decades, the livelihood of Romoland, as with other communities in the Perris Valley region, was dominated by agriculture, with the leading crops shifting from figs to citrus fruits and eventually to tomatoes, potatoes, and alfalfa (Gunther 1984:436; McDougal et al. 2019:35). During the second half of the 20th century, particularly towards the end of the century, urban/suburban development became the driving force behind the growth in the region, with vast spans of former farmlands turned into residential tracts, industrial parks, commercial establishments, and other associated facilities.

RESEARCH METHODS

RECORDS SEARCH

As the cultural resources records repository for Riverside County is currently being transferred from the Eastern Information Center (EIC) in Riverside to the South Coastal Information Center (SCIC) in San Diego, a record search could not be obtained in time for this project. In order to bridge the data gap, project archaeologist Nina Gallardo reviewed CRM TECH's archives for the most recent records search results from the EIC for other studies completed in the project vicinity. From these data, Gallardo was able to construct a complete nearly coverage of existing records pertaining to properties within a one-mile radius of the project location as of December 2023. In addition to EIC records, the City of Perris General Plan was also consulted for pertinent information.

NATIVE AMERICAN PARTICIPATION

On September 27, 2024, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. The NAHC is the State of California's trustee agency for the protection of "tribal cultural resources," as defined by California Public Resources Code §21074 and is tasked with identifying and cataloging properties of Native American cultural value, including places of special religious, spiritual, or social significance and known graves and cemeteries throughout the state. In the meantime, CRM TECH notified the Soboba Band of Luiseño Indians in San Jacinto and the Pechanga Band of Indians in Temecula of the upcoming archaeological fieldwork and invited tribal participation. Responses from the Native American representatives are presented in Appendix 2 and summarized in the sections below.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH archaeologist Deirdre Encarnación. Sources consulted during the research included published literature in local and regional history, archival records of the U.S. Bureau of Land Management (BLM), historical maps compiled by the U.S. General Land Office (GLO) and the USGS in 1865-1979, aerial/satellite photographs taken in 1966-2024, and various contemporary publications, such as newspaper reports. The historical maps are available at the websites of the USGS and the BLM, and the aerial/satellite

photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

FIELD SURVEY

On October 2, 2024, CRM TECH archaeologist Salvadore Boites carried out the field survey of the project area with the assistance of Native American monitors George Vargas from the Pechanga Band of Indians and Joesph Dominguez from the Soboba Band of Luiseño Indians. The survey was completed on foot at an intensive level by walking a series of parallel north-south transects at 15-meter (approximately 50-foot) intervals. In this way, the entire project area was surveyed systematically for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). Visibility of the native ground surface was generally poor since most of the property was covered with asphalt. In light of the extent of prior disturbances to the ground surface, however, the visibility was not considered a major hindrance to the survey effort.

RESULTS AND FINDINGS

RECORDS SEARCH

According to the recent records search results reviewed for this study, the project area had not been surveyed systematically for cultural resources prior to December 2023, and no cultural resources had been recorded within or adjacent to the project boundaries. Within the one-mile scope of the records search, the records search results indicate that 14 cultural resources were previously recorded, as listed in Table 1. All of these known cultural resources were sites dating to the historic period, and no prehistoric—i.e., Native American—sites or artifacts were documented in the one-mile radius. As Table 1 shows, the 14 sites included six buildings or groups of buildings, the San Jacinto Valley Railway, and segments of seven streets in Romoland where they crossed State Route 74.

None of the 14 sites was recorded in the immediate vicinity of the project area. However, one of the sites, designated 33-020502 (CA-RIV-10403H) in the California Historical Resources Inventory, represents an approximately 50-foot segment of Sherman Road lying within and adjacent to the State Route 74 right-of-way, some 800 feet north of the project area. From that location, Sherman Road runs further to the south as well as to the north, passing just outside the eastern project boundary. The roughly 70-foot segment of Sherman Road, thus, is considered an extension of Site 33-020502. None of the other 13 sites requires any further consideration in conjunction with this project.

The Conservation Element of the City of Perris General Plan classifies the project vicinity as an area of "Low Density Site Probability" for cultural resources, projected at one site or less per quarter mile (City of Perris 2008:21). The General Plan notes that most of the prehistoric sites in and around the City of Perris consist of bedrock milling slicks (*ibid.*:20). Current ethnohistorical scholarship suggests that Native peoples in this area lived in base camps close to water sources, usually in protected areas such as near the base of hills (Bean and Shipek 1978). The project area, located on the open valley floor, would not have been a favored location for long-term habitation, and there are no bedrock outcrops on the property that could have been used for resource processing, as noted below.

Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search		
Site No.	**Recorded by/Date**	**Description**
33-007701	Hedges 1982	Vernacular wood frame-bungalow, circa 1919
33-007702	Hedges 1982	Vernacular ranch house, circa 1919
33-015381	Rees 2006	Abandoned residential buildings, circa 1923
33-015382	Rees 2006	Single-family residence, circa 1934
33-015383	Rees 2006	Single-family residence, circa 1918
33-015389	Rees 2006	Single-family residence, circa 1960
33-015743	Various 2005-2016	San Jacinto Valley Railway (Santa Fe)
33-020448	Trampier 2011	Segment of Fourth Street at the intersection with State Route 74
33-020449	Trampier 2011	Segment of Second Street at the intersection with State Route 74
33-020450	Trampier 2011	Segment of First Street at the intersection with State Route 74
33-020502	Trampier 2011	Segment of Sherman Road at the intersection with State Route 74
33-020503	Trampier 2011	Segment of Third Street at the intersection with State Route 74
33-020640	Trampier 2011	Segment of Antelope Road at the intersection with State Route 74
33-021493	Trampier 2011	Segment of Watson Road at the intersection with State Route 74

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the NAHC reported in a letter dated October 15, 2024, that the Sacred Lands File (SLF) yielded negative results for Native American cultural resources in the project vicinity but noted that the absence of specific records in the SLF would not preclude the presence of such resources (see App. 2). Therefore, the NAHC recommended that local Native American groups be contacted for further information and provided a referral list of 32 individuals associated with 14 local Native American groups (see App. 2).

As stated above, CRM TECH maintained correspondence and coordination with the Soboba Band of Luiseño Indians and the Pechanga Band of Indians, the two nearest Native American groups, during the course of this study. As a result, Native American monitors from both tribes participated in the archaeological field survey, but no further input has been received from either group. The NAHC's reply is attached in Appendix 2 for reference by the City of Perris in future government-to-government consultations with the pertinent tribal groups, if necessary.

HISTORICAL RESEARCH

Historical sources consulted during this study suggest that the project area is relatively low in sensitivity for cultural resources from the historic period. In the 1850s-1860s, when the U.S. government conducted the earliest systematic land survey in the Perris Valley region, no human-made features were observed in or near the project area (Fig. 6). By the 1890s, a grid of roads, lined by scattered buildings, had emerged around the town of Perris, including the forerunner of today's Sherman Road (Fig. 7).

On December 5, 1890, a homestead claim on the southwest quarter of Section 10, including the entire project area, was approved by the GLO and patented to Elon E. Waters (BLM n.d.), but no development activities were evident on the property by the late 1890s (Fig. 7). At that time, the San Jacinto Valley Railway, a San Fe subsidiary built across the northeast corner of the quarter-section in 1877-1888, was the only notable feature near the project location other than what is now Sherman Road (Fig. 7). In 1904, Elon Waters was one of several Perris Valley landowners who filed a lawsuit

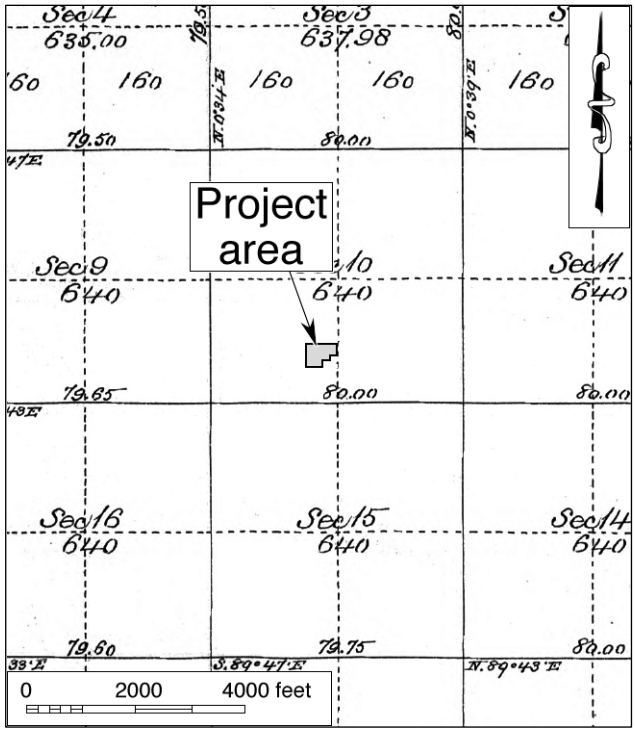


Figure 5. The project area and vicinity in 1853-1865. (Source: GLO 1865)

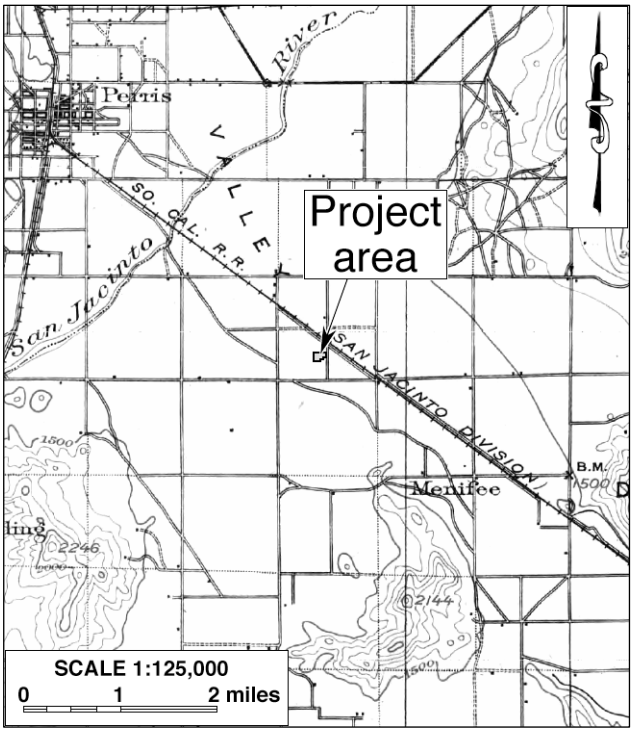


Figure 6. The project area and vicinity in 1897-1898. (Source: USGS 1901)

against the Temescal Water Company regarding the diversion of water to Corona (*Weekly Sun* 1904), but no further information was found on his activities in the area.

In the late 1930s, a dirt road extended diagonally into the project area from the northwest corner, but it was no longer extant by the early 1950s, at which time buildings were present on adjacent properties (Figs. 8, 9). In the 1960s, the project area was apparently unused for any purposes (NETR Online 1966; 1967), with agricultural pursuits on the decline throughout southern California by that time. A lone building, likely a residence, was noted in the northeast corner of the project area in 1978 but was removed sometime before 1985 (NETR Online 1978; 1985). Since then, the project area has remained vacant to the present time (NETR Online 1985-2022; Google Earth 1996-2024). Around 2009, the entire property was cleared, graded, and put into use for parking and storage (NETR Online 2009; Google Earth 2009). The most recent business identified in association with this location was a salvage yard known as Tweaker RV, but that operation evidently ceased in 2020-2021 (NETR Online 2009-2022; Google Earth 2009-2024).

FIELD SURVEY

The field survey did not encounter any buildings, structures, objects, sites, features, or artifact deposits of prehistoric or historical origin within the project boundaries. As a result of the recent activities on the property noted above, the ground surface in the entire project area has been extensively disturbed, with little vestige of the natural landscape surviving today. No bedrock outcrops or other potential markers of prehistoric human activities were found in the project area.

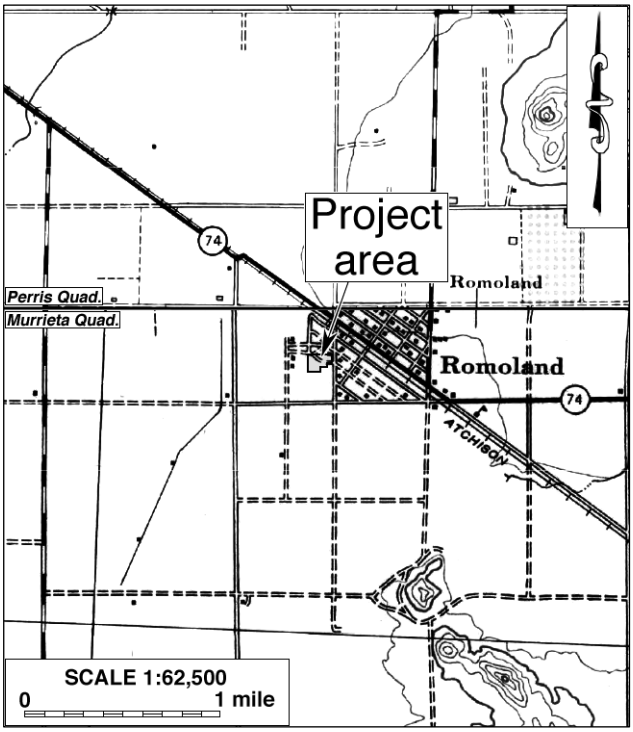


Figure 7. The project area and vicinity in 1939. (Source: USGS 1942; 1943)

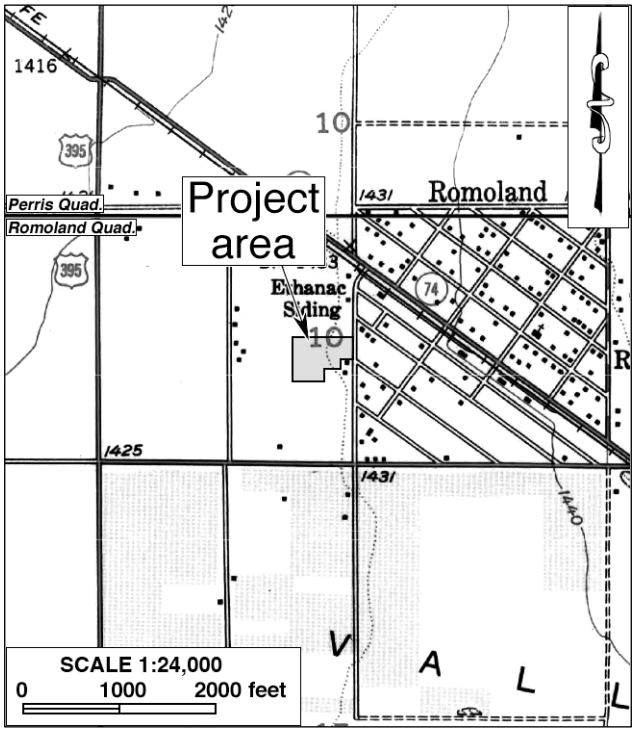


Figure 8. The project area and vicinity in 1951. (Source: USGS 1953a; 1953b)

Outside but adjacent to the eastern project boundary, the segment of Sherman Road constitutes an extension of Site 33-020502. As discussed previously, the presence of the road at this location dates at least to the late 1890s. The two-lane, asphalt-paved road was partially widened near the project location in the early years of the current century, and it is now accompanied by a concrete gutter of recent vintage on the western side. Due to these modern alterations as well as continuous maintenance, this segment of Sherman Road does not retain any distinctively historical character.

DISCUSSION

The purpose of this study is to identify any cultural resources within or adjacent to the project area and assist the City of Perris in determining whether such resources meet the official definition of "historical resources," as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for

the evaluation of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

In summary of the research results presented above, no potential "historical resources" were previously recorded within the project area, and none was identified during the present survey. Outside but adjacent to the project boundary, the approximately 70-foot segment of segment of Sherman Road is considered an extension of Site 33-020502. However, as a working component of the modern transportation infrastructure, the current configuration and appearance of the road at this location reflect much more the result of upgrading and maintenance during the most recent decades. As such, this segment of Sherman Road demonstrates no potential to qualify as a "historical resource," nor does it contribute to the potential significance of Site 33-020502 as a whole. Based on these findings, CRM TECH concludes that no "historical resources" is known to be present within or adjacent to the project area.

CONCLUSION AND RECOMMENDATIONS

CEQA establishes 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" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired." In conclusion, the present study encountered no "historical resources," as defined by CEQA and associated regulations, within or adjacent to the project area. Therefore, CRM TECH presents the following recommendations to the City of Perris:

- The project as currently proposed will not cause a substantial adverse change to any known "historical resources."
- No further cultural resources investigation is necessary for the proposed project unless development plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are discovered during any earth-moving operations associated with the project, all work in the immediate vicinity should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

REFERENCES

Basgall, Mark E., and D.L. True
1985 Archaeological Investigations in Crowder Canyon, 1973-1984: Excavations at Sites SBR-421B, SBR-421C, SBR-421D, and SBR-713, San Bernardino County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

Bean, Lowell John, and Florence C. Shipek
1978 Luiseño. In Robert F. Heizer (ed.): *Handbook of North American Indians*, Vol. 8: *California*; pp. 550-563. Smithsonian Institution, Washington, D.C.

Beck, Warren A., and Ynez D. Haase
1974 *Historical Atlas of California*. University of Oklahoma Press, Norman.

BLM (Bureau of Land Management, U.S. Department of the Interior)
n.d. The Official Federal Land Records Site. http://www.glorecords.blm.gov.

Chartkoff, Joseph L., and Kerry Kona Chartkoff
1984 *The Archaeology of California*. Stanford University Press, Stanford, California.

City of Perris
2008 City of Perris General Plan, Conservation Element. https://www.cityofperris.org/departments/development-services/general-plan.

GLO (General Land Office, U.S. Department of the Interior)
1865 Plat Map: Township No. 5 South Range No. 3 West, SBBM; surveyed in 1853-1865.

Goldberg, Susan K. (ed.)
2001 Metropolitan Water District of Southern California Eastside Reservoir Project: Final Report of Archaeological Investigations. On file, South Coastal Information Center, San Diego State University, San Diego, California.

Goodman, John D., II
2002 Archaeological Survey of the Charter Communications Cable Project, Mountaintop Ranger District, San Bernardino National Forest, California. San Bernardino National Forest Technical Report 05-12-BB-102. San Bernardino.

Goodman, John D., II, and M. McDonald
2001 Archaeological Survey of the Southern California Trials Association Event Area, Little Pine Flats, Mountaintop Ranger District, San Bernardino National Forest, California. San Bernardino National Forest Technical Report 05-12-BB-106. San Bernardino.

Google Earth
1996-2024 Aerial photographs of the project vicinity; taken in 1996, 2002, 2003, 2005, 2006, 2009, 2011-2014, 2016, and 2018-2024. Available through the Google Earth software.

Grenda, Donn
1993 Archaeological Treatment Plan for CA-RIV-2798/H, Lake Elsinore, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.
1997 Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore. Statistical Research Technical Series 59. Statistical Research, Inc., Tucson, Arizona.

Gunther, Jane Davies
1984 *Riverside County, California, Place Names: Their Origins and Their Stories*. J.D. Gunther, Riverside.

Horne, Melinda C., and Dennis P. McDougall
2008 CA-RIV-6069: Early Archaic Settlement and Subsistence in the San Jacinto Valley, Western Riverside County, California. On file, South Coastal Information Center, San Diego State University, San Diego, California.

Hudson, Tom
1989 *A Thousand Years in Temecula Valley*. Reprinted by Old Town Temecula Museum, Temecula.
Keller, Jean S., and Daniel F. McCarthy
1989 Data Recovery at the Cole Canyon Site (CA-RIV-1139), Riverside County, California. *Pacific Coast Archeological Society Quarterly* 25.
Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, D.C.
McDonald, Meg, Philip J. Wilke, and Andrea Kauss
1987 McCue: An Elko Site in Riverside County. *Journal of California and Great Basin Anthropology* 9(1):46-73.
McDougall, Dennis, Tiffany Clark, and Evan Mills
2019 Cultural Resource Assessment of Assessor's Parcel No. 360-130-003 in the City of Menifee, Riverside County, California. https://cityofmenifee.us/DocumentCenter/View/10446/Appendix-C1_AE-A_Cultural-Survey-Report.
Milburn, Doug, U.K. Doan, and John D. Goodman II
2008 Archaeological Investigation at Baldy Mesa-Cajon Divide for the Baldy Mesa Off-Highway-Vehicle Recreation Trails Project, San Bernardino National Forest, San Bernardino County, California. San Bernardino National Forest Technical Report 05-12-53-091. San Bernardino.
MVHA (Menifee Valley Historical Association)
2016 Historical Marker for the 1918 Romoland School. Placed at the intersection of Ethanac Road and Matthews Road, Romoland, California.
NETR (Nationwide Environmental Title Research) Online
1966-2022 Aerial photographs of the project vicinity; taken in 1966, 1967, 1978, 1985, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2022. http://www.historicaerials.com.
O'Connell, James F., Philip J. Wilke, Thomas F. King, and Carol L. Mix (eds.)
1974 Perris Reservoir Archaeology: Late Prehistoric Demographic Change in Southeastern California. On file, South Coastal Information Center, San Diego State University, San Diego, California.
Strong, William Duncan
1929 *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology 26. Reprinted by Malki Museum Press, Banning, California, 1972.
USGS (United States Geological Survey, U.S. Department of the Interior)
1901 Map: Elsinore, Calif. (30', 1:125,000); surveyed in 1897-1898.
1942 Map: Murrieta, Calif. (15', 1:62,500); aerial photographs taken in 1939.
1943 Map: Perris, Calif. (15', 1:62,500); aerial photographs taken in 1939.
1953a Map: Perris, Calif. (7.5', 1:24,000); aerial photographs taken in 1951.
1953b Map: Romoland, Calif. (7.5', 1:24,000); aerial photographs taken in 1951
1979a Map: Santa Ana, Calif. (120'x60', 1:250,000); 1959 edition revised.
1979b Map: Perris, Calif. (7.5', 1:24,000); 1967 edition photorevised in 1978.
1979c Map: Romoland, Calif. (7.5', 1:24,000); 1953 edition photorevised in 1976.

Warren, Claude N.
1984 The Desert Region. In Michael J. Moratto (ed.): *California Archaeology*; pp. 339-430. Academic Press, Orlando, Florida.
Weekly Sun, *The*
1904 Suits Filed Here and in Riverside Praying That Underground Waters May Be Restored to Former Fruitful Lands. Originate from Cucamonga and Perris Valley. March 4. http://newspapers.com.

APPENDIX 1
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR, HISTORY/ARCHITECTURAL HISTORY
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, University of California, Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, University of California, Riverside.
1988-1993	Research Assistant, American Social History, University of California, Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR, ARCHAEOLOGY
Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	"Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998	Assistant Research Anthropologist, University of California, Riverside.
1992-1995	Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998	Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources management study reports since 1986.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Deirdre Encarnación, M.A.

Education

2003	M.A., Anthropology, San Diego State University, California.
2000	B.A., Anthropology, minor in Biology, San Diego State University, California; with honors.
2021	Certificate of Specialization, Kumeyaay Studies, Cuyamaca College, California.
2001	Archaeological Field School, San Diego State University.
2000	Archaeological Field School, San Diego State University.

Professional Experience

2016-	Archaeological Consultant, Friends of Maha'ulepu, Koloa, Hawai'i.
2004-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2001-2003	Part-time Lecturer, San Diego State University, California.
2001	Research Assistant for Dr. Lynn Gamble, San Diego State University.
2001	Archaeological Collection Catalog, SDSU Foundation.

Presentations

2023	"The Kumeyaay-Critical Awareness, Critical Activation," Salaam, San Diego College of Continuing Education.
2023	"A Look at the Three Wise Men and Their Global Celebrations," The Epiphany Project.
2022	"Voices: A Latina Advocate Shares about Life, Stereotypes, & Rising Above," Salaam online event.
2022	"The Original Beach Town: San Diego's Coastal Heritage," San Diego Archaeological Center Living Room Lecture.

Memberships

Society for California Archaeology; Society for Hawaiian Archaeology; California Native Plant Society.

PROJECT ARCHAEOLOGIST/NATIVE AMERICAN LIAISON
Nina Gallardo, B.A.

Education

2004 B.A., Anthropology/Law and Society, University of California, Riverside.

Professional Experience

2004- Project Archaeologist, CRM TECH, Riverside/Colton, California.

Cultural Resources Management Reports

Co-author of and contributor to numerous cultural resources management reports since 2004.

PROJECT ARCHAEOLOGIST
Salvadore Z. Boites, M.A.

Education

2013 M.A., Applied Anthropology, California State University, Long Beach.
2003 B.A., Anthropology/Sociology, University of California, Riverside.
1996-1998 Archaeological Field School, Fullerton Community College, Fullerton, California.

Professional Experience

2014- Project Archaeologist, CRM TECH, Colton, California.
2010-2011 Adjunct Instructor, Anthropology, Everest College, Anaheim, California.
2003-2008 Project Archaeologist, CRM TECH, Riverside/Colton, California.
2001-2002 Teaching Assistant, Moreno Elementary School, Moreno Valley, California.
1999-2003 Research Assistant, Anthropology Department, University of California, Riverside.

Research Interests

Cultural Resource Management, Applied Archaeology/Anthropology, Indigenous Cultural Identity, Poly-culturalism.

APPENDIX 2

SACRED LANDS FILE SEARCH RESULTS

Native American Heritage Commission
Native American Contact List
Riverside County
10/15/2024

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties
Agua Caliente Band of Cahuilla Indians	F	Lacy Padilla, Director of Historic Preservation/THPO	5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 333-5222	(760) 699-6919	ACBCI-THPO@aguacaliente.net	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Augustine Band of Cahuilla Indians	F	Tribal Operations	84-001 Avenue 54 Coachella, CA, 92236	(760) 398-4722		info@augustinetribe-nsn.gov	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Cabazon Band of Cahuilla Indians	F	Doug Welmas, Chairperson	84-245 Indio Springs Parkway Indio, CA, 92203	(760) 342-2593	(760) 347-7880	jstapp@cabazonindians-nsn.gov	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Cahuilla Band of Indians	F	Erica Schenk, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 590-0942	(951) 763-2808	chair@cahuilla-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Cahuilla Band of Indians	F	BobbyRay Esparza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Los Coyotes Band of Cahuilla and Cupeño Indians	F	Ray Chapparosa, Chairperson	P.O. Box 189 Warner Springs, CA, 92086-0189	(760) 782-0711	(760) 782-0712		Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Morongo Band of Mission Indians	F	Ann Brierty, THPO	12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial, Kern, Los Angeles, Riverside, San Bernardino, San Diego
Morongo Band of Mission Indians	F	Robert Martin, Chairperson	12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial, Kern, Los Angeles, Riverside, San Bernardino, San Diego
Pala Band of Mission Indians	F	Alexis Wallick, Assistant THPO	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3537		awallick@palatribe.com	Cupeno Luiseno	Orange, Riverside, San Bernardino, San Diego
Pala Band of Mission Indians	F	Christopher Nejo, Legal Analyst/Researcher	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3564		cnejo@palatribe.com	Cupeno Luiseno	Orange, Riverside, San Bernardino, San Diego
Pala Band of Mission Indians	F	Shasta Gaughen, Tribal Historic Preservation Officer	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3515		sgaughen@palatribe.com	Cupeno Luiseno	Orange, Riverside, San Bernardino, San Diego
Pechanga Band of Indians	F	Tuba Ebru Ozdil, Pechanga Cultural Analyst	P.O. Box 2183 Temecula, CA, 92593	(951) 770-6313	(951) 695-1778	eozdil@pechanga-nsn.gov	Luiseno	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura
Pechanga Band of Indians	F	Steve Bodmer, General Counsel for Pechanga Band of Indians	P.O. Box 1477 Temecula, CA, 92593	(951) 770-6171	(951) 695-1778	sbodmer@pechanga-nsn.gov	Luiseno	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial, Kern, Los Angeles, Riverside, San Bernardino, San Diego
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial, Kern, Los Angeles, Riverside, San Bernardino, San Diego
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial, Kern, Los Angeles, Riverside, San Bernardino, San Diego
Ramona Band of Cahuilla	F	John Gomez, Environmental Coordinator	P. O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	jgomez@ramona-nsn.gov	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Ramona Band of Cahuilla	F	Joseph Hamilton, Chairperson	P.O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	admin@ramona-nsn.gov	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Rincon Band of Luiseno Indians	F	Cheryl Madrigal, Cultural Resources Manager/Tribal Historic Preservation Officer	One Government Center Lane Valley Center, CA, 92082	(760) 648-3000		cmadrigal@rincon-nsn.gov	Luiseno	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura
Rincon Band of Luiseno Indians	F	Denise Turner Walsh, Attorney General	One Government Center Lane Valley Center, CA, 92082	(760) 689-5727		dwalsh@rincon-nsn.gov	Luiseno	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura

Rincon Band of Luiseno Indians	F	Joseph Linton, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 803-3548		jlinton@rincon-nsn.gov	Luiseno	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura
Rincon Band of Luiseno Indians	F	Laurie Gonzalez, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 484-4835		lgonzalez@rincon-nsn.gov	Luiseno	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura
Santa Rosa Band of Cahuilla Indians	F	Vanessa Minott, Tribal Administrator	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	vminott@santarosa-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Santa Rosa Band of Cahuilla Indians	F	Steven Estrada, Tribal Chairman	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	sestrada@santarosa-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Torres-Martinez Desert Cahuilla Indians	F	Mary Belardo, Cultural Committee Vice Chair	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		belardom@gmail.com	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Torres-Martinez Desert Cahuilla Indians	F	Abraham Becerra, Cultural Coordinator	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		abecerra@tmdci.org	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Torres-Martinez Desert Cahuilla Indians	F	Alesia Reed, Cultural Committee Chairwoman	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		lisareed990@gmail.com	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Torres-Martinez Desert Cahuilla Indians	F	Gary Resvaloso, TM MLD	P.O. Box 1160 Thermal, CA, 92274	(760) 777-0365		grestmtm@gmail.com	Cahuilla	Imperial, Riverside, San Bernardino, San Diego
Torres-Martinez Desert Cahuilla Indians	F	Thomas Tortez, Chairperson	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300	(760) 397-8146	thomas.tortez@tmdci.org	Cahuilla	Imperial, Riverside, San Bernardino, San Diego

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed PM Design Group Green Bee Contractor Yard Project, Riverside County.

Record: PROJ-2024-005378
Report Type: List of Tribes
Counties: Riverside
NAHC Group: All

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MOORE TWINING ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED COMMERCIAL DEVELOPMENT

25775 SHERMAN ROAD

PERRIS, CALIFORNIA

Project Number: G85502.01

For:

PM Design Group, Inc.
38 Executive Park Suite 310
Irvine, California 92614

November 08, 2024

www.mooretwining.com

PH: 559.268.7021
FX: 559.268.7126
2527 Fresno Street
Fresno, CA 93721

MOORE TWINING ASSOCIATES, INC.

November 08, 2024 G85502.01

Mr. Rami Dabliz, Project Manager
PM Design Group, Inc.
38 Executive Park Suite 310
Irvine, California 92614

Subject: **Geotechnical Engineering Investigation**
Proposed Commercial Development
25775 Sherman Road
Perris, California

Dear Mr. Dabliz:

We are pleased to submit this geotechnical engineering investigation report prepared for the proposed "Green Bee Concrete" Commercial Development to be located at 23775 Sherman Road in Romoland near Perris, California.

The contents of this report include the purpose of the investigation, scope of services, background information, investigative procedures, our findings, evaluation, conclusions, and recommendations.

It is recommended that those portions of the plans and specifications that pertain to earthwork, pavements, and foundations be reviewed by Moore Twining Associates, Inc. (Moore Twining) to determine if they are consistent with our recommendations. This service is not a part of this current contractual agreement; however, the client should provide these documents for our review prior to their issuance for construction bidding purposes.

In addition, it is recommended that Moore Twining be retained to provide inspection and testing services for the excavation, earthwork, pavement, and foundation phases of construction. These services are necessary to determine if the subsurface conditions are consistent with those used in the analyses and formulation of recommendations for this investigation, and if the construction complies with our recommendations. These services are not, however, part of this current contractual agreement. A representative with our firm will contact you in the near future regarding these services.

We appreciate the opportunity to be of your service. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,

MOORE TWINING ASSOCIATES, INC.

Shaun Reich, EIT
Project Engineer
Geotechnical Engineering Division

PH: 559.268.7021
FX: 559.268.7126
2527 Fresno Street
Fresno, CA 93721

EXECUTIVE SUMMARY

Moore Twining Associates, Inc. (Moore Twining) prepared this geotechnical engineering investigation for the proposed Green Bee Concrete Commercial Development to be located at 25775 Sherman Road, in Romoland, near Perris, California.

The proposed development is anticipated to consist of "Green Bee" Commercial Development consisting of a single-story office building with a reported footprint of about 25,028 square feet with attached Mechanics shop and Storage facility. Appurtenant construction is anticipated to include concrete walkways, asphalt concrete and Portland cement concrete paved parking and drive areas, shade structures, a subsurface stormwater retention chamber, a trash enclosure, underground utilities, and landscaped areas.

The ground surface was generally covered by gravel and asphalt concrete debris. However, other debris including wood, brick, glass, metal, plastic, styrofoam, etc. was also noted. The site was also covered by scattered dried grasses and weeds, and organics. Debris piles were noted in the southwestern corner of the site. The debris piles were about 1 to 2 feet in height and consisted of asphalt concrete, plastic, wood, styrofoam, metal, other trash and dried grasses.

As part of this investigation, five (5) test borings (B-1 through B-5) were drilled at the site to depths ranging from about 10 to 50 feet below site grades (BSG). Additionally, two (2) more borings (P-1 &P-2) were drilled to conduct percolation tests. The borings were drilled with a truck mounted CME-75 drill rig equipped with 6-⅝ inch and 8-inch outside diameter (O.D.) hollow-stem augers. The test borings and percolation test borings drilled for the proposed development are shown on Drawing No. 2 in Appendix A of this report.

The near surface soils encountered during this investigation were generally described as medium dense silty sand fill soils extending to depths of about ½ to 1 foot BSG, underlain by loose to medium dense silty sands, underlain by layers of very stiff to hard lean clays and sandy lean clay, medium dense to very dense clayey sands, and additional medium dense to very dense silty sands extending to the maximum depth explored, about 50 feet BSG. The clayey soils (clays and clayey sands) generally exhibited cementation or were dense/very dense or hard between the depths of about 2 feet BSG and 15 feet BSG.

As part of the site grading, all surface vegetation and organics (i.e., dried grasses, leaves, weeds, palm tree bark) will need to be removed from the site and stripped to the depth required to remove roots and organics.
In order to limit the total and differential static settlement of foundations to 1 inch total and ½ inch differential in 40 feet, this report recommends over-excavation of the undocumented fill soils and near surface native soils followed by placement of an engineered fill. Provided the building pad is prepared in accordance with the recommendations included in this report, a net allowable soil bearing pressure of 2,500 pounds per square foot, for dead-plus-live loads, may be used for design.

Due to the depth of historic high groundwater (greater than 50 feet BSG) and the dense to very dense conditions of the subsurface soils, the potential for liquefaction is considered to be low and seismic settlements are considered to be negligible.

The findings of this investigation and the results of the percolation tests indicate infiltration is not considered feasible.

The results of soil sample analyses indicate that the near-surface soils exhibit a "corrosive" corrosion potential to buried metal objects. In addition, based on Table 19.3.1.1 - Exposure categories and classes from Chapter 19 of ACI 318, the sulfate concentration from chemical testing of soil samples falls in the S0 classification (less than 0.10 percent by weight) for concrete.

This executive summary should not be used for design or construction and should be reviewed in conjunction with the attached report.

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1

2.0 PURPOSE AND SCOPE OF INVESTIGATION 1
2.1 Purpose 1
2.2 Scope 2

3.0 BACKGROUND INFORMATION 3
3.1 Site Description 3
3.2 Site History and Previous Studies 4
3.3 Anticipated Construction 4

4.0 INVESTIGATIVE PROCEDURES 5
4.1 Field Exploration 5
4.1.1 Site Reconnaissance 5
4.1.2 Drilling Test Borings 5
4.1.3 Soil Sampling 6
4.1.4 Percolation Testing 6
4.2 Laboratory Testing 6

5.0 FINDINGS AND RESULTS 7
5.1 Surficial Geology 7
5.2 Soil Profile 7
5.3 Soil Engineering Properties 7
5.4 Results of Percolation Testing 9
5.5 Groundwater Conditions 9

6.0 EVALUATION 9
6.1 Existing Surface Conditions 9
6.2 Expansive Soils 10
6.3 Static Settlement and Bearing Capacity of Shallow Foundations 10
6.4 Seismic Ground Rupture and Design Parameters 11
6.5 Liquefaction and Seismic Settlement 11
6.6 Asphalt Concrete (AC) Pavements 11
6.7 Portland Cement Concrete (PCC) Pavements 12
6.8 Soil Corrosion 12
6.9 Sulfate Attack of Concrete 13

TABLE OF CONTENTS

Page

7.0 CONCLUSIONS 14

8.0 RECOMMENDATIONS 15
8.1 General 15
8.2 Site Grading and Drainage 16
8.3 Site Preparation 17
8.4 Engineered Fill 19
8.5 Conventional Shallow Spread Foundations and Concrete Slabs on Grade 22
8.6 Shade Structure Foundations Supported on Cast-in-Drilled-Hole (CIDH) Pile Foundations 24
8.7 Cast-in-Drilled-Hole Pile Construction 25
8.8 Interior Slabs-on-Grade 26
8.9 Exterior Slabs-on-Grade 28
8.10 Asphalt Concrete (AC) Pavements 30
8.11 Portland Cement Concrete (PCC) Pavements 31
8.12 Slopes, Shoring and Temporary Excavations 33
8.13 Utility Trenches 34
8.14 Corrosion Protection 37

9.0 DESIGN CONSULTATION 38

10.0 CONSTRUCTION MONITORING 38

11.0 NOTIFICATION AND LIMITATIONS 39

APPENDICES

APPENDIX A - Drawings A-1

Drawing No. 1 - Site Location Map
Drawing No. 2 - Test Boring Location Map

APPENDIX B - Logs of Borings B-1

APPENDIX C - Results of Laboratory Tests C-1

APPENDIX D - Percolation Tests Results D-1

GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED COMMERCIAL DEVELOPMENT

25775 SHERMAN ROAD

PERRIS, CALIFORNIA

Project Number: G85502.01

1.0 INTRODUCTION

This report presents the results of a geotechnical engineering investigation for the proposed commercial development to be located at 25775 Sherman Road in Perris, California. Moore Twining Associates, Inc. (Moore Twining) was authorized by PM Design Group, Inc. to perform this geotechnical engineering investigation.

The contents of this report include the purpose of the investigation and the scope of services provided. The site history, previous studies, site description, and anticipated construction are discussed. In addition, a description of the investigative procedures used and the subsequent findings obtained are presented. Finally, the report provides an evaluation of the findings, general conclusions, and related recommendations. The report appendices contain the drawings (Appendix A), the logs of borings (Appendix B), the results of laboratory tests (Appendix C), and the results of the field percolation testing (Appendix D).

The Geotechnical Engineering Division of Moore Twining, performed the investigation.

2.0 PURPOSE AND SCOPE OF INVESTIGATION

2.1 Purpose: The purpose of the investigation was to conduct a field exploration and a laboratory testing program, evaluate the data collected during the field and laboratory portions of the investigation, and provide the following:

2.1.1 Evaluation of the near surface soils within the zone of influence of the proposed foundations and pavements with regard to the anticipated foundation and traffic loads;

2.1.2 Recommendations for 2022 California Building Code seismic coefficients and earthquake spectral response acceleration values;

2.1.3 Geotechnical parameters for use in design of foundations and slabs-on-grade;

2.1.4 Recommendations for site preparation including placement, moisture conditioning, and compaction of engineered fill soils;

2.1.5 Recommendations for the design and construction of new asphalt concrete (AC) and Portland cement concrete (PCC) pavements;

2.1.6 Assessment of the infiltration characteristics of the subsurface soils;

2.1.7 Recommendations for temporary excavations and trench backfill; and

2.1.8 Conclusions regarding soil corrosion potential.

This report is provided specifically for the commercial development project referenced in the Anticipated Construction section of this report. This investigation did not include a flood plain investigation, compaction tests, environmental investigation, or environmental audit.

2.2 Scope: Our proposal (Moore Twining Reference Number MTP 24-0455), dated July 31, 2024, outlined the scope of our services. The actions undertaken during the investigation are summarized as follows.

2.2.1 The Site Plan, sheet A050, undated and provided via email July 24, 2024, developed by PM Design Group, Inc., was reviewed for general project information.

2.2.2 Satellite images of the site between the years 1996 and 2023 from online sources, were reviewed.

2.2.3 The Geologic Map of the Romoland 7.5' Quadrangle, Riverside County, California, USGS Open-File Report 03-102, prepared by Douglas M. Morton, was reviewed. In addition, the Geologic Map of the Perris 7.5' Quadrangle, Riverside County, California, USGS Open-File Report 03-270, prepared by Douglas M. Morton, was reviewed.

2.2.4 A visual site reconnaissance and subsurface geotechnical exploration were conducted.

2.2.5 Laboratory tests were conducted to determine selected physical and engineering properties of the subsurface soils encountered.

2.2.6 Mr. Rami Dabliz, project manager, and Mr. Joe Lieberman, architect, senior vice president (PM Design Group, Inc.) were consulted during the investigation.

2.2.7 The data obtained from the investigation were evaluated to develop an understanding of the subsurface soil conditions and the engineering properties of the subsurface soils.

2.2.8 This report was prepared to present the purpose and scope, background information, field exploration procedures, findings, evaluation, conclusions, and recommendations.

3.0 BACKGROUND INFORMATION

The site description, site history and previous studies, and the anticipated construction are summarized in the following subsections.

3.1 Site Description: The subject site is located at 25775 Sherman Road in Perris, California. A site location map is presented on Drawing No. 1 in Appendix A. The site consists of assigned Riverside County Assessor's Parcel Numbers (APN) 329-240-028 and -031. The site plan indicates the joined parcels have a combined area of about 5.49 acres.

The site is bound to the north by an Industrial property operated by JN Grease Services with a pond at the northeast the subject site, to the east by Sherman Road, to the south by vacant land (in the western portion of the site) and by a residence and a commercial property, operated by Eagle Construction and Lonsdale Trucking (in the eastern portion of the site), and to the west by mostly vacant land and also some residences adjacent to the northwest portion of the site. It should be noted that adjacent to the subject property, Sherman Road is not constructed with gutter or sidewalk, and the shoulder contains a drainage swale.

At the time of our field exploration, the site was undeveloped, and was used for equipment staging for Green Bee Concrete. The equipment was parked on the site directly north of the Lonsdale Trucking development. The ground surface was generally covered with gravel, with various debris and scattered dried grasses and weeds. However, near the gated entrance on the east side of the site accessed from Sherman Road, highly weathered asphalt concrete pavement was exposed. The eastern half of the site was generally covered by gravel and gravel size fragments of asphalt concrete debris, some wood, and some scattered dried grasses and weeds. However, the southeast portion of the site was mostly covered by dried grasses, leaves, and a tree stump was noted. The western portion of the site was covered by gravel and various debris.

The most abundant debris covering the site surface consisted of gravel to cobble size pieces of asphalt concrete throughout the subject area. Other debris noted in the western portion of the site included wood, brick, plastic, metal, styrofoam, glass, porcelain and other scattered trash. The western portion of the site was also covered by scattered dried grasses and weeds. The northwestern portion of the site also was covered by scattered palm tree bark. Some debris piles were noted in the southwestern corner of the site, extending about 45 feet north from the southern property boundary and about 40 feet east of the western property boundary. The debris piles were about 1 to 2 feet in height and consisted of asphalt concrete, plastic, wood, styrofoam, metal, other trash and dried grasses. The property was surrounded by chain link fences.

No underground utilities were marked at the site. However, in the northeast portion of the site, a water spigot was noted.

The site is relatively flat and appeared to slope gently down to the south. However, the USGS 7.5-Minute Series Topographic Map for the Romoland Quadrangle, California-Riverside County, indicates that the terrain slopes gently down to the west and has an elevation of about 1,430 feet above mean sea level.

3.2 Site History and Previous Studies: For site history information, aerial images of the site from online sources were reviewed between the years 1996 and 2023. The site appears as vacant land covered by seasonal vegetation and a couple trees in the southwest portion of the site from 1996 through June 2009. An image dated November 2009 showed the site to be cleared of vegetation and trees, covered by gravel and used for storage of material stockpiles. Between November 2009 and August 2018, the site included numerous vehicles and storage containers scattered throughout the site and stockpiled vehicle tires in the northwestern portion of the site. The December 2018 and August 2019 images of the site show several stockpiles of dark gray soil in the western portion of the site. The December 2020 images of the site shows that the western portion of the site included several stockpiles of debris. The next image of the site, dated August 2021, showed that the site had been cleared. Between the August 2021 image and the latest April 2023 image of the site, the site has remained cleared with an increase in vegetation growth over these years.

No previous geotechnical engineering, geological, compaction reports, or environmental studies conducted for this site were provided for review during this investigation. If available, these reports should be provided for review and consideration for this project.

3.3 Anticipated Construction: Based on our review of the referenced site plan, the proposed commercial development will include a proposed Green Bee Concrete building in the central-southern portion of the site and paved parking and drive areas and landscaped areas throughout most of the remainder of the site. The Green Bee Concrete building is further reported to be a single-story office building with a reported footprint of about 25,028 square feet with attached Mechanics shop and Storage facility. Appurtenant construction is anticipated to include concrete walkways, asphalt concrete and Portland cement concrete paved parking and drive areas, shade structures, a stormwater infiltration basin, a trash enclosure, underground utilities, and landscaped areas. It is anticipated that the majority of the pavements will be constructed with asphalt concrete. The eastern portion of the site will include parking stalls for vehicles, with the western portion of the site to be configured for equipment and truck parking spaces. The site plan shows that three covered shade structures are planned in the southwestern portion of the site for material storage. A 43,470 square foot lumber yard area is also shown on the site plan in the southwestern portion of the site near the proposed shade structures. A detention pond is proposed within the eastern portion of the site adjacent to Sherman Road. In addition, a 6-foot high masonry screen wall is planned around the northern, western and southern property boundaries. Other appurtenant construction will include a guard shack, concrete walkways, underground utilities, and landscaped areas.

The proposed building construction is further reported to consist of a single-story, concrete slab-on-grade floor and supported by conventional shallow spread foundations. The shade structures are anticipated to be supported on either shallow spread foundations or cast-in-drilled-hole foundations.

Based on our experience with similar projects, it is assumed the proposed office building may have maximum column loads (if any) of up to 40 kips, maximum perimeter wall loads of 3.5 kips per linear foot and a floor load of about 150 pounds per square foot or less. If the actual loads exceed these values, Moore Twining should be provided the actual loads for geotechnical analysis.

No grading plan was available at the time of the preparation of this report. Since the site is relatively flat, it is anticipated that less than 2 feet of cut or fill will be required to achieve the proposed site grades.

4.0 INVESTIGATIVE PROCEDURES

The field exploration and laboratory testing programs conducted for this investigation are summarized in the following subsections.

4.1 Field Exploration: The field exploration consisted of a site reconnaissance, drilling test borings, conducting standard penetration tests, soil sampling and percolation testing.

4.1.1 Site Reconnaissance: The site reconnaissance consisted of walking the site and noting visible surface features. The reconnaissance was conducted by an engineering geologist from Moore Twining on September 17, 2024. The features noted are described in the background information section of this report.

4.1.2 Drilling Test Borings: Prior to drilling, the site was marked for Underground Service Alert for members to mark out the locations of existing member utilities.

The locations and depths of the test borings were selected based on the site plan provided, our experience with similar projects in the area, the type of construction, estimated depths of influence of the anticipated foundation loads, and the subsurface soil conditions encountered.

On September 17, 2024, five (5) test borings (B-1 through B-5) were drilled at the site to depths of about 10 to 50 feet below site grades (BSG). Additionally, two more percolation test borings (P-1 and P-2) were drilled to depths of about 5 and 7½ feet BSG to conduct percolation tests in the area proposed for the detention pond. The borings were drilled with a truck mounted CME-75 drill rig equipped with 8 inch outside diameter (O.D.) hollow-stem augers. The approximate test boring locations are shown on Drawing No. 2 in Appendix A of this report.

During the drilling of the test borings, bulk samples of soil were obtained for laboratory testing. The test borings were drilled under the direction of a Moore Twining professional engineer and logged during drilling by a Moore Twining engineer or geologist. The field soil classification was in accordance with the Unified Soil Classification System and consisted of particle size, color, and other distinguishing features of the soil.

The presence and elevation or absence of free water in the borings were noted and recorded during drilling and immediately following completion of the borings.

Test boring locations were staked prior to the field exploration using Global Positioning System (GPS) coordinates. After completion of drilling, the test borings were backfilled soil cuttings that were tamped at the surface. Due to the loose nature of the test boring backfill, some settlement of the backfill should be anticipated.

4.1.3 Soil Sampling: Standard penetration tests were conducted in the test borings, and both disturbed and relatively undisturbed soil samples were obtained.

The standard penetration resistance, N-value, is defined as the number of blows required to drive a standard split barrel sampler into the soil. The standard split barrel sampler has a 2-inch O.D. and a 1⅜-inch inside diameter (I.D.). The sampler is driven by a 140-pound weight free falling 30 inches. The sampler is lowered to the bottom of the bore hole and set by driving it an initial 6 inches. It is then driven an additional 12 inches and the number of blows required to advance the sampler the additional 12 inches is recorded as the N-value.

Relatively undisturbed soil samples for laboratory tests were obtained by pushing or driving a California modified split barrel ring sampler into the soil. The soil was retained in stainless steel rings, 2.5 inches O.D. and 1-inch in height. The lower 6-inch portion of the samples were placed in close-fitting, plastic, airtight containers which, in turn, were placed in cushioned boxes for transport to the laboratory. Soil samples obtained were taken to Moore Twining's laboratory for classification and testing.

4.1.4 Percolation Tests: Percolation test borings P-1 and P-2 were drilled on September 17, 2024 to depths of about 5¼ and 7½ feet BSG. The soil encountered at the bottom of percolation tests consisted of dense to very dense medium to high plasticity clayey sand.

The test holes were cylindrical with a diameter of about 8 inches. The percolation test hole included a 2 inch diameter perforated pipe surrounded with gravel to limit washout during refilling. Each test was pre-soaked with about 5 gallons of water on the afternoon of September 17, 2024 to a height of about 42 inches in P-1, and to a height of about 24 inches in P-2. Approximately 15 hours later on the morning of September 18, 2024, approximately 17 inches and about 10½ inches of presoak water remained in the holes for P-1 and P-2, respectively. Since the presoak water did not infiltrate the test holes, the percolation tests were terminated. The field measurements of the presoak water are included on the percolation test sheets in Appendix D.

4.2 Laboratory Testing: The laboratory testing was programmed to determine selected physical and engineering properties of the soils sampled during drilling. The tests were conducted on disturbed and relatively undisturbed samples considered representative of the subsurface soils encountered.

The results of laboratory tests are summarized in Appendix C. These data, along with the field observations, were used to prepare the final test boring logs in Appendix B.

5.0 FINDINGS AND RESULTS

The findings and results of the field exploration and laboratory testing are summarized in the following subsections.

5.1 Surficial Geology: The Geologic Map of the Romoland 7.5' Quadrangle, Riverside County, California, USGS Open-File Report 03-102, prepared by Douglas M. Morton, was reviewed. In addition, the Geologic Map of the Perris 7.5' Quadrangle, Riverside County, California, from USGS Open-File Report 03-270, prepared by Douglas M. Morton, was reviewed. This geologic map of the Romoland 7.5' Quadrangle indicates the site is underlain by unit Qof_a old alluvial fan deposits (late to middle Pleistocene age) which are described as reddish brown, gravel and sand alluvial fan deposits; indurated, commonly slightly dissected. The geologic map also indicates that the subscripted "a" character for the Qof unit indicates that "a" stands for arenaceous; sand or sand bearing (very coarse sand through very fine sand).

5.2 Soil Profile: The site contains various surface debris (including debris piles) as described in the Background Information of this report. Below these surficial materials, the near surface soils encountered during this investigation consisted of fill soils extending to depths of about ½ to 1 foot BSG. The fill soils generally consisted of silty sand with gravel. Below the fill soils, the native soils generally consisted of silty sands extending to depths of about 2 to 3½ feet BSG, which were underlain by lean clays, sandy lean clays and clayey sands generally extending to depths of about 8½ to 13½ feet BSG, which were underlain by silty sands extending to the maximum depth explored, about 50 feet BSG. The clayey soils (clays and clayey sands) generally exhibited cementation or were dense/very dense or hard between the depths of about 2 feet BSG and 15 feet BSG. Below the clayey soils, the silty sands encountered at depths of about 13½ to 15 feet BSG had the appearance of extremely weathered decomposed granite.

The foregoing is a general summary of the soil conditions encountered in the test borings drilled for this investigation. Detailed descriptions of the soils encountered at each test boring location are presented in the logs of borings in Appendix B. The stratification lines in the logs represent the approximate boundary soil types; the actual in-situ transition may be gradual.

5.3 Soil Engineering Properties: The following is a description of the soil engineering properties as determined from our field exploration and laboratory testing.

Silty Sand and Silty Sand with Gravel Fill Soils: The silty sand and silty sand with gravel fill soils encountered were described as medium dense, as indicated by standard penetration resistance, N-values SPT equivalent N-value (estimated by driving a California Modified split barrel sampler), ranging from 11 to 18 blows per foot. The moisture content of the samples tested ranged from about 5.9 to 6.9 percent. One (1) relatively undisturbed sample revealed a dry density of 129.3 pounds per cubic foot.

Native Silty Sands: The native silty sands encountered were described as loose to very dense, as indicated by standard penetration resistance, N-values SPT equivalent N-value (estimated by driving a California Modified split barrel sampler), ranging from 7 to greater than 50 blows per foot. The

moisture content of the samples tested ranged from about 6.5 to 8.0 percent. Two (2) relatively undisturbed samples revealed dry densities of 121.7 and 129.3 pounds per cubic foot. A direct shear test conducted on a sample collected from Boring B-1 from a depth of 0 to 1½ feet BSG indicated an internal angle of friction of 32 degrees and a cohesion of 530 pounds per square foot. An Atterberg limits test conducted on a silty sand sample resulted in a non-viscous liquid limit and a corresponding non-plastic plasticity index.

Native Lean Clays and Sandy Lean Clays: The native lean clays and sandy lean clays encountered were described as stiff to hard, as indicated by standard penetration resistance, N-values, ranging from 9 to 41 blows per foot. The moisture content of the samples tested ranged from about 8.8 to 14.6 percent. Four (4) relatively undisturbed samples revealed dry densities of 114.5, 125.1, 125.8, and 126.1 pounds per cubic foot. A consolidation test conducted on a sample collected from depths of about 2 to 3½ feet BSG from boring B-1 indicated about 3.3 percent consolidation under a load of 16 kips per square foot. Upon inundation, the sample exhibited negligible movement when wetted under a load of 0.5 kips per square foot. An Atterberg limits test conducted on a clay sample collected from depths of 2 to 2¾ feet BSG from boring B-2 indicated a liquid limit of 22 and a plasticity index of 9.

Native Clayey Sands: The native clayey sands encountered were described as medium dense to very dense as indicated by standard penetration resistance, SPT N-values and SPT-equivalent N-values estimated by driving a California Modified split barrel sampler, ranging from 30 to greater than 50 blows per foot. The moisture content of the samples tested ranged from about 6.7 to 12.2 percent. One (1) relatively undisturbed sample revealed a dry density of 109.0 pounds per cubic foot. An Atterberg limits test conducted on a clayey sand sample collected from depths of ½ to 1½ feet BSG from boring B-3 indicated a non-viscous liquid limit and a corresponding non-plastic plasticity index.

Expansion Index Test: An expansion index test conducted from a near surface sample containing a mixture of sandy lean clay and clayey sand and collected from depths of about 2 to 4 feet BSG from boring B-2 indicated an expansion index of 15.

Maximum Density/Optimum Moisture Determination: A maximum density/optimum moisture determination was conducted on a silty sand sample collected from depths of about 0 to 3 feet BSG from test boring B-1, which indicated a maximum dry density of 135.9 pounds per cubic foot at an optimum moisture content of 8.6 percent.

R-value Test: Two (2) R-value tests conducted on near surface silty sand samples collected from depths of about 0 to 3½ feet BSG from boring B-4 and from depths of about 0 to 2 feet BSG from boring B-5 resulted in R-values of 33 and 47, respectively.

Chemical Tests: Chemical tests performed on a near surface soil sample collected from depths of 0 to 3 feet BSG from boring B-1 resulted in a pH value of 8.3; a minimum resistivity value of 4,600 ohms-centimeter; 0.0079 percent by weight concentration of sulfate; and not detected indicating a value below the reporting limit of 0.0006 percent by weight concentration of chloride.

5.4 Results of Percolation Testing: The presoak water added in the percolation test holes still remained in the holes the following morning. Thus, the percolation tests were not continued due to the negligible infiltration rate. Refer to the data included in Appendix D of this report.

5.5 Groundwater Conditions: Groundwater was not encountered at the time of our September 2024 field exploration to the maximum depth explored, about 50 feet BSG. Based on our review of the groundwater data from wells on the Department of Water Resources website, a well located about ⅛ mile northeast of the site indicated that groundwater has ranged from about 74 feet BSG in October 2021 to about 85 feet BSG in October 2016 for data collected between the years 2014 and 2024. The most recent measurement from this well in March 2024 indicated a groundwater depth of about 79 feet BSG.

It should be recognized, however, that groundwater elevations fluctuate with time, since they are dependent upon seasonal precipitation, irrigation, land use, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered both during the construction phase and the design life of the project. The evaluation of such factors was beyond the scope of this investigation and report.

6.0 EVALUATION

The data and methodology used to develop conclusions and recommendations for project design and preparation of construction specifications are summarized in the following subsections. The evaluation was based upon the subsurface soil conditions encountered during this investigation and our understanding of the proposed construction. The conclusions obtained from the results of our evaluations are described in the Conclusions section of this report.

6.1 Existing Surface Conditions: At the time of our field exploration, the project site was undeveloped, and the southern portion of the site was used for parking of Green Bee trucks. The ground surface was generally covered by gravel and asphalt concrete debris. However, other debris including wood, brick, glass, metal, plastic, styrofoam, etc. was also noted. The site was also covered by scattered dried grasses and weeds, and organics. Debris piles were noted in the southwestern corner of the site, extending about 45 feet north from the southern property boundary and about 40 feet east of the western property boundary. The debris piles were about 1 to 2 feet in height and consisted of asphalt concrete, plastic, wood, styrofoam, metal, other trash and dried grasses. A tree trunk was noted in the southeastern portion of the site. A vertical pipe with a water spigot was noted in the northeastern portion of the site.

As part of the site grading, all surface vegetation and organics (i.e., dried grasses, leaves, weeds, palm tree bark) will need to be removed from the site and stripped to the depth required to remove roots and organics. In addition, the existing stockpiles in the southwest corner of the site will need to be removed. These materials will not be considered suitable for reuse as engineered fill. The tree stump in the southeastern portion of the site should be removed along with the root ball and all roots greater than ¾ inches in diameter.

Any underground utility lines at the site, such as for the water spigot in the northeastern portion of the site, should be fully removed from the site and not abandoned or crushed and buried in-place. All utility trench backfill encountered should also be removed during removal of any underground utilities.

In the building area, the debris encountered at the ground surface should be removed and not mixed with soils to be reused as engineered fill. However, if acceptable by the owner and provided a relatively uniform mixture can be achieved that is a well graded mixture of soil and gravel sized stone, the existing surface gravel and asphalt concrete fragments may be mixed with soils to be used as engineered fill in areas outside the building pad preparation limits such as in proposed pavement areas.

6.2 Expansive Soils: In evaluation of the potential for expansive soils at the site, expansion index testing was performed on representative samples of the near surface soils which are anticipated to be within the zone of influence of the planned improvements. The expansion index testing was performed in accordance with ASTM D4829 and the results are included in Appendix C of this report. Based on the results of this investigation, the near surface soils exhibit a very low expansion potential. Accordingly, expansive soils are not anticipated to be a concern for the site. However, this report does recommend placement of a minimum of 4 inches of aggregate base below slabs-on-grade for constructability purposes. Although one sample of the near surface clay soils indicated a low plasticity, deposits of clay with expansive soil characteristics should not be placed within the upper 2 feet of finished subgrade.

6.3 Static Settlement and Bearing Capacity of Shallow Foundations: The potential for excessive total and differential static settlement of foundations and slabs-on-grade is a geotechnical concern that was evaluated for this project. The increases in effective stress to underlying soils which can occur from new foundations and structures, placement of fill, withdrawal of groundwater, etc. can cause vertical deformation of the soils, which can result in damage to the overlying structures and improvements. The differential component of the settlement is often the most damaging. In addition, the allowable bearing pressures of the soils supporting the foundations were evaluated for shear and punching type failure of the soils resulting from the imposed foundation loads.

In order to limit the total and differential static settlement of foundations to 1 inch total and ½ inch differential in 30 feet, after removal of organics and stockpiled material, all existing fill soils should be excavated to expose undisturbed native soils and to achieve compaction of the footing subgrade soils as recommended in this report. Provided the building pad is prepared in accordance with the recommendations presented in this report, a net allowable soil bearing pressure of 2,500 pounds per square foot, for dead-plus-live loads, may be used for design.

The net allowable soil bearing pressure is the additional contact pressure at the base of the foundations caused by the structure. The weight of the soil backfill and weight of the footing may be neglected. The net allowable soil bearing pressure presented was selected using the Terzaghi bearing capacity equations for foundations considering a minimum factor of safety of 3.0 and based on the anticipated static settlements noted in this report.

A structural engineer experienced in foundation and slab-on-grade design should determine the thickness, reinforcement, design details and concrete specifications for the proposed building foundations and slabs-on-grade based on the anticipated settlements estimated in this report.

6.4 Seismic Ground Rupture and Design Parameters: The project site is not located in an Alquist-Priolo Earthquake Fault Zone. The site is located roughly halfway between the Elsinore Fault Zone located southwest of the site and the San Jacinto Fault Zone located northeast of the site. The closest mapped active faults are the Casa Loma Fault (part of the Elsinore Fault Zone), which is located approximately 9¾ miles southwest of the site and the Glen Ivy North Fault (part of the San Jacinto Fault Zone), which is located approximately 10 miles northeast of the site. Accordingly, the potential for ground rupture associated with a known fault at the site is considered low.

It is our understanding that the 2022 CBC will be used for structural design, and that seismic site coefficients are needed for design.

Based on the 2022 CBC and ASCE 7-16, a Site Class D represents the on-site soil conditions with standard penetration resistance, N-values, averaging between 15 and 50 blows per foot in the upper 100 feet below site grade.

A table providing the recommended mapped seismic coefficients and earthquake spectral response acceleration values for the project site is included in the Foundation Recommendations section of this report. A Maximum Considered Earthquake (geometric mean) peak ground acceleration adjusted for site effects (PGA_M) of 0.55g was determined for the site using the Ground Motion Parameter Calculator provided by the Structural Engineers Association of California website (https://seismicmaps.org/).

6.5 Liquefaction and Seismic Settlement: Liquefaction and seismic settlement are conditions that can occur under seismic shaking from earthquake events. Liquefaction describes a phenomenon in which a saturated, cohesionless soil loses strength during an earthquake as a result of induced shearing strains. Lateral and vertical movements of the soil mass, combined with loss of bearing can result. Fine, well sorted, loose sand, shallow groundwater conditions, higher intensity earthquakes, and particularly long duration of ground shaking are the requisite conditions for liquefaction. One of the most common phenomena that occurs during seismic shaking is the induced settlement of loose, unconsolidated sediments. This can occur in unsaturated and saturated granular soils; however, seismic settlements are typically largest where liquefaction occurs (saturated soils).

Since groundwater is greater than 50 feet, the potential for liquefaction is low. In addition, due to the primarily dense to very dense soil conditions, seismic settlements are considered to be negligible.

6.6 Asphalt Concrete (AC) Pavements: Recommendations for asphalt concrete pavement structural sections are presented in the "Recommendations" section of this report for proposed asphalt concrete (AC) pavements. The structural sections were designed using the gravel equivalent method in accordance with the California Department of Transportation Highway Design Manual. The analysis was based on traffic index values ranging from 5.0 to 10.0. The appropriate paving section should be determined by the project civil engineer or applicable design professional based on the actual vehicle loading (traffic index) values. If traffic loading is anticipated to be greater than assumed, the pavement sections should be re-evaluated.

It should be noted that if pavements are constructed prior to the construction of the structures, the additional construction truck traffic should be considered in the selection of the traffic index value. If more frequent or heavier traffic is anticipated and higher Traffic Index values are needed, Moore Twining should be contacted to provide additional pavement section designs.

Based on the results of the laboratory testing conducted as part of this investigation, an R-value of 30 was used for pavement design purposes. The procedures of the Caltrans Highway Design Manual were used to estimate the pavement section thickness recommendations.

6.7 Portland Cement Concrete (PCC) Pavements: Recommendations for Portland cement concrete (PCC) pavement structural sections are presented in the "Recommendations" section of this report. The PCC pavement sections are based upon the amount and type of traffic loads being considered and the characteristics of the subgrade soils which will support the pavement. The measure of the amount and type of traffic loads are based upon an index of equivalent axle loads (EAL) from the loading of heavy trucks called a traffic index (T.I).

The pavement sections were prepared based on ranges of average daily commercial truck traffic (ADT) and traffic loading which is approximately equivalent to traffic indexes ranging from 6 to 11. The recommended structural sections were based primarily on the StreetPave pavement design application www.pavementdesigner.org. A modulus of subgrade reaction, K-value, for the pavement section, considering a minimum 4-inch thick layer of aggregate base material (minimum R-value of 78), of 200 psi/in at the top of the aggregate base was used for the pavement thickness design.

6.8 Soil Corrosion: The risk of corrosion of construction materials relates to the potential for soil-induced chemical reaction. Corrosion is a naturally occurring process whereby the surface of a metallic structure is oxidized or reduced to a corrosion product such as iron oxide (i.e., rust). The metallic surface is attacked through the migration of ions and loses its original strength by the thinning of the member.

Soils make up a complex environment for potential metallic corrosion. The corrosion potential of a soil depends on numerous factors including soil resistivity, texture, acidity, field moisture and chemical concentrations. In order to evaluate the potential for corrosion of metallic objects in contact with the onsite soils, chemical testing of soil samples was performed by Moore Twining as part of this report. The test results are included in Appendix C of this report. Conclusions regarding the corrosion potential of the soils tested are included in the Conclusions section of this report based on the corrosion severity ratings listed in the Table No. 1 below.

Table No. 1
Soil Resistivity and Corrosion Potential Ratings

Soil Resistivity (ohm cm)	Corrosion Potential Rating
>20,000	Essentially non-corrosive
10,000 - 20,000	Mildly corrosive
5,000 - 10,000	Moderately corrosive
3,000 - 5,000	Corrosive
1,000 - 3,000	Highly corrosive
<1,000	Extremely corrosive

The results of soil sample analyses indicate that the near-surface soils exhibit a "corrosive" corrosion potential to buried metal objects. Appropriate corrosion protection should be provided for buried improvements based on the corrosion potential. If piping or concrete are placed in contact with imported soils, these soils should be analyzed to evaluate the corrosion potential of these soils.

If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to provide design parameters. Moore Twining does not provide corrosion engineering services.

6.9 Sulfate Attack of Concrete: Degradation of concrete in contact with soils due to sulfate attack involves complex physical and chemical processes. When sulfate attack occurs, these processes can reduce the durability of concrete by altering the chemical and microstructural nature of the cement paste. Sulfate attack is dependent on a variety of conditions including concrete quality, exposure to sulfates in soil, groundwater and environmental factors. The standard practice for geotechnical engineers in evaluation of the soils anticipated to be in contact with structural concrete is to perform laboratory testing to determine the concentrations of sulfates present in the soils. The test results are then compared with the exposure classes in Table 19.3.1.1 of ACI 318 to provide guidelines for concrete exposed to soils containing sulfates. It should be noted that other exposure conditions such as the presence of seawater, groundwater with elevated concentrations of dissolved sulfates, or materials other than soils can result in sulfate exposure categories to concrete that are higher than the concentrations of sulfate in soil. The design engineer will need to determine whether other potential sources of sulfate exposure need to be considered other than exposure to sulfates in soil. The sulfate exposure classes for soils from Table 19.3.1.1 are summarized in the below table.

Table No. 2
ACI Exposure Categories for Water Soluble Sulfate in Soils

Sulfate Exposure Class (per ACI 318)	Water Soluble Sulfate in Soil (Percent by Mass)
S0	Less than 0.10 Percent
S1	0.10 to Less than 0.20 Percent
S2	0.20 to Less than or Equal to 2.00 Percent
S3	Greater than 2.00 Percent

Common methods used to resist the potential for degradation of concrete due to sulfate attack from soils include, but are not limited to the use of sulfate-resisting cements, air-entrainment and reduced water to cement ratios. The laboratory test results for sulfates are included in Appendix C of this report. Conclusions regarding the sulfate test results are included in the Conclusions section of this report.

7.0 CONCLUSIONS

Based on the data collected during the field and laboratory investigations, our geotechnical experience in the vicinity of the project site, and our understanding of the anticipated construction, the following general conclusions are presented.

7.1 The site is considered suitable for the proposed construction with regard to support of the proposed improvements, provided the recommendations contained in this report are followed. It should be noted that the recommended design consultation and observation of clearing, and earthwork activities by Moore Twining are integral to this conclusion.

7.2 The ground surface was generally covered by gravel and asphalt concrete debris. However, other debris including wood, brick, glass, metal, plastic, styrofoam, etc. was also noted. The site was also covered by scattered dried grasses and weeds, and organics. As previously discussed, soil stockpiles were observed within the southwestern corner of the subject project site in an area measured to be about 42 feet by 45 feet. The soil stockpiles were about 1 to 2 feet in height and included various debris and were also covered by dried grasses. As part of the site development, the near surface debris and organics will need to be removed. The soil stockpiles will also need to be removed unless they are determined during grading to consist of suitable soils.

7.3 The near surface soils encountered during this investigation were generally described as medium dense silty sand fill soils extending to depths of about ½ to 1 foot BSG, underlain by loose to medium dense silty sands, underlain by layers of very stiff to hard lean clays and sandy lean clay, medium dense to very dense clayey sands, and additional medium dense to very dense silty sands extending to the maximum depth explored, about 50 feet BSG. The clayey soils (clays and clayey sands) generally exhibited cementation or were dense/very dense or hard between the depths of about 2 feet BSG and 15 feet BSG.

7.4 The near surface silty sands are non-plastic, are considered to be non-expansive, have moderate shear strength characteristics and fair support characteristics for pavements when compacted as engineered fill. The underlying clays and clayey sands encountered exhibited low plasticity characteristics, and slight compressibility characteristics.

7.5 Groundwater was not encountered to the maximum depth explored, about feet BSG. Well data near the site indicates groundwater has historically been greater than 70 feet BSG.

7.6 In order to limit static settlements of the new foundations to 1 inch total and ½ inch differential, as part of the site preparation, the on-site soils should be over-excavated to the depth required to remove all organics, stockpiles, disturbed soils, existing fill soils, and to the bottom of foundations, whichever is greater.

7.7 The results of the percolation tests indicated the subsurface soils are not suitable for infiltration.

7.8 Due to the depth of historic high groundwater (greater than 50 feet BSG) and the dense to very dense conditions of the subsurface soils, the potential for liquefaction is considered to be low and seismic settlements are considered to be negligible.

7.9 Chemical testing of soil samples indicated the soils exhibit a "corrosive" corrosion potential.

7.10 Based on Table 19.3.1.1 - Exposure categories and classes from Chapter 19 of ACI 318, the sulfate concentration from chemical testing of soil samples falls in the S0 classification (less than 0.10 percent by weight) for concrete.

7.11 The potential for fault rupture on the site is considered low.

8.0 RECOMMENDATIONS

Based on the evaluation of the field and laboratory data and our geotechnical experience in the vicinity of the project, the following recommendations are presented for use in the project design and construction. However, this report should be considered in its entirety. When applying the recommendations for design, the background information, procedures used, findings, evaluation, and conclusions should be considered. The recommended design consultation and construction monitoring by Moore Twining are integral to the proper application of the recommendations. The Contractor is required to comply with the requirements and recommendations presented in this report.

Where the requirements of a governing agency, utility agency or pipe manufacturer differ from the recommendations of this report, the more stringent recommendations should be applied to the project.

8.1 General

8.1.1 It is assumed that the building structure may have maximum column loads of about 40 kips, maximum perimeter wall loads of 3.5 kips per linear foot and a floor load of 150 pounds per square foot. In the event the foundation loads are different than assumed, the recommendations in this report may need to be revised.

8.1.2 Moore Twining should be retained to review the final grading plans and foundation plans before the plans are released for bidding purposes so that any relevant recommendations can be presented.

8.1.3 A preconstruction meeting including, as a minimum, the owner, general contractor, earthwork contractor, foundation and paving subcontractors, and Moore Twining should be scheduled by the general contractor at least one week prior to the start of clearing and grubbing. The purpose of the meeting should be to discuss critical project requirements and scheduling.

8.1.4 The Contractor(s) bidding on this project should determine if the information included in the construction documents are sufficient for accurate bid purposes. If the data are not sufficient, the Contractor should conduct, or retain a qualified geotechnical engineer to conduct, supplemental studies and collect information as required to prepare accurate bids.

8.1.5 The Contractor should use appropriate equipment such as low-pressure equipment, steel tracks, etc. to minimize rutting and subgrade instability.

8.2 Site Grading and Drainage

8.2.1 It is critical to develop and maintain site grades which will drain surface and roof runoff away from foundations and floor slabs - both during and after construction. Adjacent exterior finished grades should be sloped a minimum of two percent for a distance of at least ten feet away from the structures, or as necessary to preclude ponding of water adjacent to foundations, whichever is more stringent. Adjacent exterior grades which are paved should be sloped at least 1 percent away from the foundations.

8.2.2 It is recommended that landscape planted areas, etc. not be placed adjacent to the building foundations and/or interior slabs-on-grade. Trees should be setback from the proposed structures at least 10 feet or a distance equal to the anticipated drip line radius of the mature tree. For example, if a tree has an anticipated drip-line diameter of 30 feet, the tree should be planted at least 15 feet away (radius) from proposed or existing buildings.

8.2.3 Landscaping after construction should direct rainfall and irrigation runoff away from the structures and should establish positive drainage of water away from the structures. Care should be taken to maintain a leak-free sprinkler system.

8.2.4 Landscape and planter areas should be irrigated using low flow irrigation (such as drip, bubblers or mist type emitters). The use of plants with low water requirements are recommended.

8.2.5 Rain gutters and roof drains should be provided, and connected directly to the site storm drain system. As an alternative, the roof drains should extend a minimum of 5 feet away from the structures and the resulting runoff directed away from the structures on paved surfaces at a minimum of 2 percent.

8.2.6 Stormwater collection systems which allow concentrated wetting of the soils are not recommended near improvements which are sensitive to soil movement. In the event subsurface storm water collection systems, bioswales or similar designs that allow concentrated runoff to wet the soils are planned, the proposed locations and details of these features should be provided to Moore Twining for review and comment. If stormwater collection features that wet the soils are required, sufficient setbacks to existing improvements should be maintained such as a minimum 20 foot setback to planned foundations, unless

the systems are fully lined with a waterproof liner. In addition, specific measures such as deepened curbs, perimeter cutoffs, liners, etc. should be incorporated in the designs to reduce the potential for excessive movement of other adjacent improvements due to moisture, concentrated wetting, and freewater migration from storm water disposal systems.

8.3 Site Preparation

8.3.1 Stripping should be conducted in all areas to remove existing deleterious debris and surface organics/vegetation (dried grasses, etc.). The general depth of stripping should be sufficiently deep to remove the root systems and organic topsoils.

8.3.2 The debris piles within the southwestern portion of the site described in this report should be removed and offhauled.

8.3.3 A tree stump was noted in the southeast portion of the site, and a couple trees historically existed in the southwest portion of the site. The tree stump, rootball and all roots should be removed as part of the site preparation. All roots larger than ¼ inch in diameter or any accumulation of organic matter that will result in an organic content more than 3 percent by weight should be removed and not used as engineered fill. The roots should be excavated to a minimum depth of 12 inches below the excavations required to remove the tree, root ball, and roots. After the removal of all loose soils, the bottom of the excavation should be scarified to a minimum depth of 8 inches and compacted as engineered fill prior to backfilling operations. If grinding operations are conducted on the site, these areas need to be cleaned of all organic matter and not used as engineered fill. Tree removal operations and site preparation related to tree removal should be observed by Moore Twining.

8.3.4 Existing utility lines and all associated bedding and backfill soils associated with underground utilities should be completely removed. Prior to backfill, all loose and disturbed soils should also be removed and the bottom of the excavation should be scarified to a depth of 8 inches, moisture conditioned and compacted as engineered fill.

8.3.5 After stripping, and removal of subsurface improvements (if any), the building pad area and all areas of foundations should be over-excavated to the depth required to remove all fill soils, to a depth of at least 2 feet below preconstruction site grades, and to the bottom of the new footings, whichever is greater. The over-excavation should be conducted to a nearly uniform grade throughout the building pad limit. Slot cutting only below foundations will not be allowed. The horizontal limits of over-excavation should include the entire footprint of the building, all foundations, all concrete walkways adjacent to the building, and a minimum of 5 feet beyond these features, whichever is greater. Upon review of the Contractor's survey data (documenting the vertical and horizontal limits of the over-excavation) and approval of the over-excavation by Moore Twining, the bottom of the excavation should be scarified to a depth of 8 inches, moisture conditioned, and compacted as engineered fill.

8.3.6 The horizontal limit of over-excavation recommended for the building pad should be depicted on the project plans.

8.3.7 It is recommended that extra care be taken by the contractor to ensure that the horizontal and vertical extent of the over-excavation and compaction conform to the site preparation recommendations presented in this report. Moore Twining is not responsible for measuring and verifying the horizontal and vertical extent of over-excavation and compaction. The contractor should verify in writing to the owner and Moore Twining that the horizontal and vertical over-excavation limits were completed in conformance with the recommendations of this report, the project plans, and the specifications (the most stringent applies). It is recommended that this verification be performed by a licensed surveyor. This verification should be provided prior to requesting pad certification from Moore Twining.

8.3.8 Following stripping, areas of miscellaneous lightly loaded foundations with a line load of less than 1 kip per foot, such as site walls, guard shack, etc., should be over-excavated to the bottom of foundations, to at least 2 feet below preconstruction site grades, and to the depth required to remove all undocumented fill soils, whichever is greater. The over-excavation should extend to at least 3 feet beyond the edges of the foundations. The bottom of the over-excavation should be scarified to a depth of at least 8 inches, moisture conditioned and compacted as engineered fill.

8.3.9 Following stripping, areas to receive new pavements, exterior slabs on grade outside the building pad preparation limits and areas to receive fill outside the building pad preparation limits should be over-excavated to a depth of 12 inches below preconstruction site grade, to the depth required to remove existing undocumented fill soils, or to the bottom of the aggregate base section, whichever is greater. Upon approval of the bottom of the over-excavation by Moore Twining, the bottom of the excavation should be scarified to a depth of 12 inches, the scarified soils should be moisture conditioned and compacted as engineered fill. The limits of scarification for pavement areas and exterior slabs should extend at least 3 feet beyond the edge of these improvements. The upper 12 inches of the subgrade soils beneath the pavement areas should be compacted to at least 95 percent of the maximum dry density as determined by ASTM Test Method D1557. After the excavation depths noted above are achieved, as an alternative to scarification and compaction of the bottom of the excavation to a depth of 12 inches, additional excavation may be performed and the depth of scarification may be reduced by the depth of additional excavation.

8.3.10 All fill required to bring the site to final grades should be placed as engineered fill. In addition, all native soils over-excavated should be compacted as engineered fill.

8.3.11 The contractor should locate all on-site water wells (if any). All wells scheduled for demolition should be abandoned per state and local requirements. The contractor should obtain an abandonment permit from the local environmental health department, and issue certificates of destruction to the owner and Moore Twining upon completion. At a minimum, wells in building areas (and within 5 feet of building perimeters) should have their casings removed to a depth of at least 8 feet below preconstruction site grades or finished pad grades, whichever is deeper. In parking lot or landscape areas, the casings should be removed to a depth of at least 5 feet below site grades or finished grades. The wells should be capped with concrete and the resulting excavations should be backfilled as engineered fill.

8.3.12 The moisture content and density of the compacted soils should be maintained in accordance with the requirements for engineered fill until the placement of concrete. If soft or unstable soils are encountered during excavation or compaction operations, our firm should be notified so the soils conditions can be examined and additional recommendations provided to address the pliant areas.

8.3.13 Final grading shall produce a building pad and finished subgrade which is smooth, planar, and resistant to rutting. The finished subgrade (before aggregate base is placed) shall not depress more than one-half (½) inch under the wheels of a fully loaded water truck, or equivalent loading. If depressions more than one-half (½) inch occur, the contractor shall perform remedial grading to achieve this requirement at no cost to the owner.

8.3.14 The Contractor should be responsible for the disposal of concrete, asphalt concrete, soil, spoils, etc. (if any) that must be exported from the site. Individuals, facilities, agencies, etc. may require analytical testing and other assessments of these materials to determine if these materials are acceptable. The Contractor should be responsible to perform the tests, assessments, etc. to determine the appropriate method of disposal.

8.4 Engineered Fill

8.4.1 Below the existing debris which covers most of the site, the on-site near surface soils encountered are predominantly silty sands which are underlain by clays and clayey sands. The on-site near surface soils with an expansion index of less than 30 will be suitable for use as engineered fill below the recommended aggregate base, provided they are free of debris, organics (less than 3 percent by weight and no roots larger than ¼ inch in diameter), irreducible material greater than 6 inches, and the moisture content of the soil is within optimum to three (3) percent above optimum moisture content at the time of placement. In the event clayey soils are encountered which possess an expansion index of 30 or greater, these soils should not be placed as fill within the upper 2 feet of finished subgrade. This report recommends that all concrete slabs on grade be underlain

by at least 4 inches of aggregate base. If soils other than those considered in this report are encountered, Moore Twining should be notified to provide alternate recommendations.

If acceptable to the owner and provided a relatively uniform mixture can be achieved that is a well graded mixture of soil and gravel sized stone and the deleterious debris can be removed from the surface material, the existing surface gravel and asphalt concrete fragments may be mixed with soils to be used as engineered fill in areas outside the building pad preparation limits such as in proposed pavement areas.

8.4.2 The compactability of the native soils is dependent upon the moisture contents, subgrade conditions, degree of mixing, type of equipment, as well as other factors. The evaluation of such factors was beyond the scope of this report; therefore, it is recommended that they be evaluated by the contractor during preparation of bids and construction of the project.

8.4.3 Import fill soil (if any) should be non-recycled, non-expansive and granular in nature with the following acceptance criteria recommended.

Percent Passing 3-Inch Sieve	100
Percent Passing No. 4 Sieve	85 - 100
Percent Passing No. 200 Sieve	15 - 50
Expansion Index (ASTM D4829)	Less than 20
Organics	Less than 3 percent by weight
R-Value	Minimum 30*
Sulfates	< 0.05 percent by weight
Min. Resistivity	> 4,000 ohm-cm**

* for pavement areas only
** applicable to fill materials in contact with metallic materials that may be subject to corrosion

Prior to being transported to the site, the import material shall be certified by the Contractor and the supplier (to the satisfaction of the Owner) that the soils do not contain any environmental contaminates regulated by local, state or federal agencies having jurisdiction. In addition, Moore Twining should be requested to sample and test the material to determine compliance with the above geotechnical criteria. Contractors should provide a minimum of 7 working days to complete the testing.

8.4.4 On-site native granular soils and imported, granular, non-expansive engineered fill soil should be placed in loose lifts approximately 8 inches thick, moisture-conditioned to between optimum and three percent above optimum moisture content, and compacted to a dry density of at least 92 percent of the maximum dry density as determined by ASTM Test Method D1557, with exception that the upper 12 inches of fill and subgrade in pavement areas should be compacted

to a minimum of 95 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

8.4.5 On-site native clayey engineered fill soil should be placed in loose lifts approximately 8 inches thick, moisture-conditioned to between one (1) and four (4) percent above optimum moisture content, and compacted to a dry density of at least 90 percent of the maximum dry density as determined by ASTM Test Method D1557, with exception that the upper 12 inches of fill and subgrade in pavement areas should be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

8.4.6 In-place density testing should be conducted in accordance with ASTM D 6938 (nuclear methods) at a frequency of at least:

Table No. 3

Area	**Minimum Test Frequency**
Building Pad	1 test per 5,000 square feet per compacted lift, but not less than two tests per building pad per lift
Pavement Subgrade and Mass Grading Outside Building Pads	1 test per 5,000 square feet per compacted lift
Walkways	1 test per 50 lineal feet
Utility Lines	1 test per 100 feet per lift

8.4.7 Open graded gravel and rock material such as ¾-inch crushed rock or ½-inch crushed rock should not be used as backfill including trench backfill. In the event gravel or rock is required by a regulatory agency for use as backfill (Contractor to obtain a letter from the agency stating the requirement for rock and/or gravel as backfill), all open graded materials shall be fully encased in a geotextile filter fabric, such as Mirafi 140N, to prevent migration of fine grained soils into the porous material. Gravel and rock cannot be used without the written approval of Moore Twining. If the contractor elects to use crushed rock (and if approved by Moore Twining), the contractor will be responsible for slurry cut off walls at the locations directed by Moore Twining. Crushed rock should be placed in thin (less than 8 inch) lifts and densified with a minimum of three (3) passes using a vibratory compactor.

8.4.8 Aggregate base below the interior building slab on grade shall be non-recycled and comply with Class 2 aggregate base (AB) per Caltrans Standard Specifications. Aggregate base used for pavement construction should comply with Class 2 aggregate base in accordance with Caltrans Standard Specifications and may include recycled materials. Aggregate base shall be compacted to a minimum relative compaction of 95 percent in accordance with ASTM D1557 standards.

8.5 Conventional Shallow Spread Foundations and Concrete Slabs on Grade

8.5.1 A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the foundations and slabs on grade based on the estimated settlements. The following should be anticipated for design: a total static settlement of 1 inch and a differential static settlement of ½ inch in 30 feet.

8.5.2 Foundations supported on engineered fill soils prepared as recommended in the Site Preparation section of this report may be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot for dead-plus-live loads. This value may be increased by one-third for short duration wind or seismic loads.

8.5.3 All perimeter footings for the new buildings should have a minimum depth of 18 inches below the lowest adjacent grade. All interior foundations should have a minimum depth of 12 inches below the bottom of the floor slab or to the depth required to match existing foundations. All footings for the new buildings should have a minimum width of 15 inches, regardless of load.

8.5.4 The foundations should be continuous around the perimeter of the proposed building to reduce moisture migration beneath the structures. Continuous perimeter foundations should be extended through doorways and/or openings that are not needed for support of loads.

8.5.5 The following seismic factors were developed using online data obtained from the Ground Motion Parameter Calculator provided by the Structural Engineers Association of California website (https://seismicmaps.org/) based upon a latitude of 33.745928 degrees and a longitude of -117.181630 degrees and a Site Class D. The data provided in Table No. 4 are based upon the procedures of ASCE 7-16 and were not determined based upon a ground motion hazard analysis. The structural engineer should review the values in Table No.4 and determine whether a ground motion hazard analysis is required for the project considering the seismic design category, structural details, and requirements of ASCE 7-16 (Section 11.4.8 and other applicable sections). If required, Moore Twining should be notified and requested to conduct the additional analysis, develop updated seismic factors for the project, and update the following values.

Table No. 4

Seismic Factor	ASCE 7-16
Site Class	D
Maximum Considered Earthquake (geometric mean) peak ground acceleration adjusted for site effects (PGA_M)	0.550
Mapped Maximum Considered Earthquake (geometric mean) peak ground acceleration (PGA)	0.500
Spectral Response At Short Period (0.2 Second), S_s	1.422
Spectral Response At 1-Second Period, S_1	0.528
Site Coefficient (based on Spectral Response At Short Period), F_a	1.0
Site Coefficient (based on spectral response at 1-second period) F_v	See Note
Maximum considered earthquake spectral response acceleration for short period, S_{MS}	1.422
Maximum considered earthquake spectral response acceleration at 1 second, S_{M1}	See Note
Five percent damped design spectral response accelerations for short period, S_{DS}	0.948
Five percent damped design spectral response accelerations at 1-second period, S_{D1}	See Note

Note: Requires ground motion hazard analysis per ASCE Section 21.2 (ASCE 7-16, Section 11.4.8), unless an Exception of Section 11.4.8 of ASCE 7-16 is applicable for the project design.

8.5.6 Foundation excavations should be observed by Moore Twining prior to the placement of steel reinforcement and concrete to verify conformance with the intent of the recommendations of this report. The Contractor is responsible for proper notification to Moore Twining and receipt of written confirmation of this observation prior to placement of steel reinforcement.

8.5.7 The moisture conditions of the subgrade soils for the building pad and foundation excavations should be maintained in accordance with the recommendations for engineered fill until placement of concrete for foundations or until aggregate base is placed for the building pad areas.

8.5.8 Structural loads for lightly loaded (less than 1 kip per lineal foot) miscellaneous foundations such as screen walls for the proposed trash enclosures should be supported on subgrade soils prepared in accordance with the "Site Preparation" section of this report. The screen walls for the trash enclosure may be supported by footings extending to a minimum depth of 12 inches below the lowest adjacent finished grade and a minimum width of 12 inches. These improvements may be designed for a maximum allowable soil bearing pressure of 1,500 pounds per square foot for dead-plus-live loads for footings. This value may be increased by one-third for short duration wind or seismic loads.

8.5.9 The bottom surface area of concrete footings or concrete slabs in direct contact with engineered fill can be used to resist lateral loads. An allowable coefficient of friction of 0.36 can be used for design. In areas where slabs are underlain by a synthetic moisture barrier, an allowable coefficient of friction of 0.10 can be used for design.

8.5.10 For spread foundations, the allowable passive resistance of the engineered fill may be assumed to be equal to the pressure developed by a fluid with a density of 350 pounds per cubic foot. The upper 6 inches of subgrade in landscaped areas should be neglected in determining the total passive resistance.

8.6 Shade Structure Foundations Supported on Cast-in-Drilled-Hole (CIDH) Pile Foundations

8.6.1 A structural engineer registered in the state of California should prepare structural details for the fuel canopy foundations to resist shear, moment, and axial (tension and compression) loads.

8.6.2 Skin friction in the upper portion of the piles, to a depth of 12 inches should be neglected for design. The allowable vertical downward load capacity of the CIDH pile foundations extending into native undisturbed soils may be designed based on an allowable skin friction value of 300 pounds per square foot, which assumes a minimum embedment depth of 8 feet BSG. The above stated values assume that the cast-in-drilled-hole foundations are placed into the existing undisturbed native soils. These values may be increased ⅓ for short duration loading.

8.6.3 The allowable uplift resistance of the pile foundations may be assumed to be half of the skin friction value used for design.

8.6.4 Piles should be placed no closer to each other than three pile diameters, center-to-center. For alternate spacing, the capacity of piles in groups should be reduced using appropriate group reduction formulas.

8.6.5 A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the foundations based on a total static settlement of 1 inch and a differential static settlement of ½ inch between foundations.

8.6.6 Passive resistance in the upper portion of the piles, to a depth of 1 foot should be neglected for design. The allowable passive resistance of the soils below a depth of 1 foot below site grade may be assumed to be equal to the pressure developed by a fluid with a density of 350 pounds per cubic foot to a maximum of 3,500 pounds per square foot. These values may be increased by one-third for short duration wind or seismic loads. The passive pressure for drilled pile foundations spaced a minimum of three (3) pile diameters may be applied over a width equal to 2 pile diameters.

8.6.7 Piles should be placed no closer than three pile diameters, center-to-center. For alternate spacing, the capacity of piles in groups should be reduced using appropriate group reduction formulas.

8.7 Cast-In-Drilled-Hole Pile Construction

8.7.1 It is assumed the project structural engineer will prepare a specification for the construction of drilled foundations as part of the construction documents. The specifications should be consistent with the recommendations included in this report.

8.7.2 Concrete should be placed in the drilled shaft as soon as possible following drilling.

8.7.3 Provisions such as temporary casing should be used for temporary support of the excavations during construction. The casing should be slowly removed from the shaft excavation during placement of concrete to ensure the casing is not raised above the level of the concrete during shaft construction, to prevent sidewall soils from sloughing into the shaft excavation. As an alternative, it may be possible to utilize a drilling slurry for temporary support of the foundation excavations if unstable sidewalls occur. The Contractor will be required to provide temporary excavation support of the drilled pile excavations as necessary to construct the foundations.

8.7.4 Casing (if used) should be able to withstand the external pressures of the caving soils. The outside diameter of the casing should not be less than the diameter of the cast-in-drilled hole concrete pile.

8.7.5 Drilled holes for pile foundations should be drilled within 2 degrees of vertical. The rebar cage should be suspended within 2 degrees of vertical in the center of the excavation. This condition should be verified and documented during construction. Minimum concrete cover, as specified by the project design engineer, should be maintained throughout the length of the excavation.

8.7.6 In the event freewater seepage is encountered during excavation, the concrete should be placed from the bottom of the excavation by extending the tremie pipe or pump pipe to the bottom of the excavation and maintaining the outlet of the pipe below the wet concrete to prevent entrapment of freewater or slurry in the concrete. The concrete should be placed in a continuous manner to provide a seamless deep foundation element.

8.7.7 Casing should be lifted slowly as the concrete is deposited, while the bottom of the casing is kept at least two feet below the top of the concrete.

8.7.8 Moore Twining should inspect the drilling of the shafts to verify that the materials encountered are consistent with those evaluated during our geotechnical engineering investigation. This inspection should be conducted during drilling and prior to placement of reinforcing steel and concrete.

8.7.9 Loose soils should be removed from the drilled shaft excavation prior to placement of reinforcing steel and concrete.

8.8 Interior Slabs-on-Grade

8.8.1 Interior slabs-on-grade should be constructed over 4 inches of non-recycled aggregate base over engineered fill extending to the depth recommended in the Site Preparation section of this report.

8.8.2 The recommendations provided herein are intended only for the design of interior concrete slabs-on-grade and their proposed uses, which do not include construction traffic (i.e., cranes, cement mixers, and rock trucks, etc.). The building contractor should assess the slab section and determine its adequacy to support any proposed construction traffic.

8.8.3 The slabs and underlying subgrade should be constructed in accordance with current American Concrete Institute (ACI) standards.

8.8.4 A vapor retarder should be placed below interior building slabs where moisture could permeate into the interior and create problems. Refer to the American Concrete Institute's Guide to Concrete Floor and Slab Construction (ACI 302.1R) for selection and installation of moisture vapor retarders. It is recommended that a Stegowrap 15 vapor retarder be used where moisture could permeate into the interior and create problems, such as where flooring or floor slab applications will contain moisture sensitive materials (or other slab applications or uses). The vapor retarder should overlay the compacted 4 inch layer of non-recycled aggregate base. It should be noted that placing the PCC slab directly on the vapor retarder may increase the potential for cracking and curling; however, ACI recommends the placement of the vapor retarding

membrane directly below the slab unless a watertight roofing system is in place prior to slab construction to reduce the amount vapor emission through the slab-on-grade. It is recommended that the slab be moist cured for a minimum of 7 days to reduce the potential for excessive cracking. The underslab membrane should have a high puncture resistance (minimum of approximately 2,400 grams of puncture resistance), high abrasion resistance, rot resistant, and mildew resistant. It is recommended that the membrane be selected in accordance with the current ASTM C 755, Standard Practice For Selection of Vapor Retarder For Thermal Insulation and conform to the current ASTM E1745 Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs and ASTM E 154 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Waters, or as Ground Cover. It is recommended that the vapor barrier installation conform to the current ACI Manual of Concrete Practice, Guide for Concrete Floor and Slab Construction (302.1R), Addendum, Vapor Retarder Location and current ASTM E 1643, Standard Practice for Installation of Water Vapor Retarders Used In Contact with Earth or Granular Fill Under Concrete Slabs. In addition, it is recommended that the manufacturer of floor covering, floor covering adhesive or other slab material applications be consulted to determine if the manufacturers have additional recommendations regarding the design and construction of the slab-on-grade, testing of the slab-on-grade, slab preparation, application of the adhesive, installation of the floor covering and maintenance requirements. It should be noted that the recommendations presented in this report are not intended to achieve a specific vapor emission rate.

8.8.5 The membrane should be installed so that there are no holes or uncovered areas. All seams should be overlapped and sealed with the manufacturer approved tape continuous at the laps so they are vapor tight. All perimeter edges of the membrane, such as pipe penetrations, interior and exterior footings, joints, etc., should be caulked per manufacturer's recommendations.

8.8.6 Tears or punctures that may occur in the membrane should be repaired prior to placement of concrete per manufacturer's recommendations. Once repaired, the membrane should be inspected by the contractor and the owner to verify adequate compliance with manufacture's recommendations.

8.8.7 Additional measures to reduce moisture migration should be implemented for floors that will receive moisture sensitive coverings. These include: 1) constructing a less pervious concrete floor slab by maintaining a water-cement ratio of 0.52 or less in the concrete for slabs-on-grade, 2) ensuring that all seams and utility protrusions are sealed with tape to create a "water tight" moisture barrier, 3) placing concrete walkways or pavements adjacent to the structures, 4) providing adequate drainage away from the structures, 5) moist cure the slabs for at least 7 days, and 6) locating lawns, irrigated landscape areas, and flower beds away from the structures.

8.8.8 The Contractor shall test the moisture vapor transmission through the slab, the pH, internal relative humidity, etc., at a frequency and method as specified by the flooring manufacturer or as required by the plans and specifications, whichever is most stringent. The results of vapor transmission tests, pH tests, internal relative humidity tests, ambient building conditions, etc. should be within floor manufacturer's and adhesive manufacturer's specifications at the time the floor is placed. It is recommended that the floor manufacturer and subcontractor review and approve the test data prior to floor covering installation.

8.8.9 To reduce the potential for damaging slabs during construction, the following recommendations are presented: 1) design for a differential slab movement of ½ inch relative to interior columns; and 2) the construction equipment which will operate on slabs or pavements should be evaluated by the contractor prior to loading the slab.

8.8.10 Backfill the zone above the top of footings at interior column locations, building perimeters, and below the bottom of slabs with an approved backfill as recommended herein for the area below interior slabs-on-grade. This procedure should provide more uniform support for the slabs which may reduce the potential for cracking.

8.9 Exterior Slabs-On-Grade

The recommendations for exterior slabs provided below are not intended for use for slabs subjected to vehicular traffic, rather lightly loaded sidewalks, curbs, and planters, etc.

8.9.1 Exterior improvements that subject the subgrade soils to a sustained load greater than 150 pounds per square foot should be prepared in accordance with recommendations presented in this report for interior slabs-on-grade. Moore Twining can provide alternative design recommendations for exterior slabs, if requested.

8.9.2 Exterior concrete slabs-on-grade (such as sidewalks, etc.) should be supported on a minimum of 4 inches of aggregate base over engineered fill prepared as recommended in the Site Preparation section of this report.

8.9.3 The moisture content of the native subgrade soils should be verified to be between one percent below and three percent above optimum moisture content within 48 hours of placement of the aggregate base. If necessary to achieve the recommended moisture content, the subgrade could be over-excavated, moisture conditioned as necessary and compacted as engineered fill.

8.9.4 The exterior slabs-on-grade adjacent to landscape areas should be designed with thickened edges which extend to the bottom of the aggregate base. This should reduce the potential for infiltration of water (and associated soil movement) into the aggregate base below exterior slabs.

8.9.5 Since exterior sidewalks, curbs, etc. are typically constructed at the end of the construction process, the moisture conditioning conducted during earthwork can revert to natural dry conditions. Placing concrete walks and finish work over dry or slightly moist subgrade should be avoided. It is recommended that the general contractor notify Moore Twining to conduct in-place moisture and density tests prior to placing concrete flatwork. Written test results indicating passing density and moisture tests should be in the general contractor's possession prior to placing concrete for exterior flatwork.

8.10 Asphalt Concrete (AC) Pavements

8.10.1 The subgrade soils for asphalt concrete pavements should be over-excavated and compacted as recommended in the "Site Preparation" section of the recommendations in this report. As part of the final preparation, the upper 12 inches of the subgrade soils should be moisture conditioned and compacted to a minimum of 95 percent of the maximum dry density determined in accordance with ASTM D 1557 and the subgrade stability should be verified by proof rolling.

8.10.2 The following pavement sections are based on an R-value of 30, traffic index values ranging from 5.0 to 10.0, and a minimum of 3 inches of asphalt concrete. It should be noted that if pavements are constructed prior to construction of the buildings, the traffic index value should account for construction traffic. The actual traffic index values applicable to the site should be determined by the project civil engineer.

Table No. 5
Two-Layer Asphalt Concrete Pavements

Traffic Index	AC thickness, inches	AB thickness, inches	Compacted Subgrade, inches
5.0	3.0	5.5	12
5.5	3.0	7.0	12
6.0	3.0	8.5	12
6.5	3.5	9.0	12
7.0	4.0	9.5	12
7.5	4.0	11.0	12
8.0	4.5	11.5	12

Traffic Index	AC thickness, inches	AB thickness, inches	Compacted Subgrade, inches
8.5	5.0	12.0	12
9.0	5.5	12.5	12
9.5	5.5	14.0	12
10.0	6.0	15.0	12

AC - Asphalt Concrete compacted as recommended in this report
AB - Class II Aggregate Base with minimum R-value of 78 and compacted to at least 95 percent relative compaction (ASTM D1557)
Subgrade - Subgrade soils compacted to at least 95 percent relative compaction (ASTM D1557)

8.10.3 The curbs where pavements meet irrigated landscape areas or uncovered open areas should extend at least to the bottom of the aggregate base section. This should reduce subgrade moisture from irrigation and runoff from migrating into the base section and reducing the life of the pavements.

8.10.4 If actual pavement subgrade materials are significantly different from those tested for this study due to unanticipated grading or soil importing, the pavement sections should be re-evaluated for the changed subgrade conditions.

8.10.5 If the paved areas are to be used during construction, or if the type and frequency of traffic are greater than assumed in design, the pavement sections should be re-evaluated for the anticipated traffic.

8.10.6 Pavement section design assumes that proper maintenance, such as sealing and repair of localized distress, will be performed on an as needed basis for longevity and safety.

8.10.7 Pavement materials and construction method should conform to the State of California Standard Specifications.

8.10.8 It is recommended that the base 2 inch thick course of asphalt concrete consist of a ¾ inch maximum medium gradation. The top course or wear course should consist of a ½ inch maximum medium gradation.

8.10.9 The asphalt concrete, including the joint density, should be compacted to an average relative compaction of 93 percent, with no single test value being below a relative compaction of 91 percent and no single test value being above a relative compaction of 97 percent of the referenced laboratory density according to ASTM D2041.

8.10.10 The asphalt concrete should comply with the requirements for a Type A asphalt concrete in accordance with the current State of California Department of Transportation (Caltrans) Standard Specification, or the requirements of the governing agency, whichever is more stringent.

8.11 Portland Cement Concrete (PCC) Pavements

Recommendations for Portland Cement Concrete pavement structural sections are presented in the following subsections. The PCC pavement design assumes a minimum modulus of rupture of 550 pounds per square inch. The design professional should specify where Portland cement concrete pavements are used based on the anticipated type and frequency of traffic.

8.11.1 The subgrade soils for Portland cement concrete pavements should be over-excavated and compacted as recommended in the "Site Preparation" section of the recommendations in this report. As part of the final preparation, the upper 12 inches of the subgrade soils should be moisture conditioned and compacted to a minimum of 95 percent of the maximum dry density determined in accordance with ASTM D 1557.

8.11.2 The following preliminary Portland cement concrete pavement sections have been prepared for average daily truck traffic which approximately corresponds to Traffic Indices ranging from about 6 to 11. The design pavement sections should be selected by the civil engineer based on the anticipated traffic loading. If the paved areas are to be used during construction, or if the type and frequency of traffic are greater than assumed in design, the pavement section should be re-evaluated for the anticipated traffic. The design structural sections were prepared based on the procedures outlined in the pavement design application www.pavementdesigner.org (Street Analysis), and assuming the following: 1) minimum modulus of rupture of 550 psi for the concrete, 2) a design life of 20 years, 3) load transfer by aggregate interlock or dowels, 4) concrete shoulder, 5) a load safety factor of 1.1, 6) truck loading consisting of a maximum single axle weight of 16,000 pounds, and a maximum tandem axle weight of 32,000 pounds.

Table No. 6
Portland Cement Concrete Pavements

Traffic Index	ADTT	PCC Thickness (inches)	Aggregate Base (inches)	Compacted Subgrade (inches)
6.0	2	5.5	4.0	12.0
7.0	7	6.0	4.0	12.0
8.0	21	6.0	4.0	12.0

Traffic Index	ADTT	PCC Thickness (inches)	Aggregate Base (inches)	Compacted Subgrade (inches)
9.0	59	6.5	4.0	12.0
10.0	145	6.5	4.0	12.0
11.0	323	7.0	4.0	12.0

ADTT - Average Daily Truck Traffic based on a loaded garbage/dumpster truck
PCC - Portland Cement Concrete (minimum Modulus of Rupture=500 psi)
Subgrade - Subgrade soils compacted to at least 95 percent relative compaction (ASTM D-1557)

8.11.3 The PCC pavement should be constructed in accordance with the American Concrete Institute requirements, the requirements of the project plans and specifications, whichever is the most stringent. The pavement design engineer should include appropriate construction details and specifications for construction joints, contraction joints, joint filler, concrete specifications, curing methods, etc.

8.11.4 Concrete used for PCC pavements shall possess a minimum flexural strength (modulus of rupture) of 550 pounds per square inch. A minimum compressive strength of 3,500 pounds per square inch, or greater as required by the pavement designer, is recommended. Specifications for the concrete to reduce the effects of excessive shrinkage, such as maximum water requirements for the concrete mix, allowable shrinkage limits, contraction joint construction requirements, etc. should be provided by the designer of the PCC pavement.

8.11.5 Jointing is one of the most critical aspects of the PCC pavement design and construction. Joint spacing, joint type and load transfer devices have significant impacts on the pavement design and performance. Thus, the detailing of joints needs to be considered carefully and applied with clear details on the project plans by the pavement designer/detailer. Positive load transfer devices such as dowels are commonly used at contraction joints whenever the designer cannot be assured aggregate interlock will be maintained.

8.11.6 Specifications for the concrete mixtures used in the PCC pavement to reduce the effects of excessive shrinkage (such as curling and excessive shrinkage at joints), including maximum water requirements for the concrete mix, allowable shrinkage limits, curing methods, etc. should be provided by the designer/detailer of the PCC slabs. In addition, as noted in Section 8.11.5, contraction joint requirements should be detailed by the designer/detailer of the PCC pavement to maintain stability. The minimum PCC thickness noted in this report assumes aggregate interlock occurs at contraction joints. However, curling and excessive shrinkage can disengage aggregate interlock and allow greater pavement deflection at free edges. The design engineer should decide if aggregate interlock is appropriate or specify joint reinforcement.

8.11.7 The pavement section thickness design provided above assumes the design and construction will include sufficient load transfer at construction joints. Coated dowels or load transfer devices are recommended for construction joints to transfer loads. The joint details should be detailed by the pavement design engineer and provided on the plans.

8.11.8 Contraction and construction joints should include a joint filler/sealer to prevent migration of water into the subgrade soils. The type of joint filler should be specified by the pavement designer. The joint sealer and filler material should be maintained throughout the life of the pavement.

8.11.9 Contraction joints should have a depth of at least one-fourth the slab thickness, e.g., 1.5-inch for a 6-inch slab. Specifications for contraction joint spacing, timing and depth of sawcuts should be included in the plans and specifications.

8.11.10 Stresses are anticipated to be greater at the edges and construction joints of the pavement section. A thickened edge is recommended on the outside of slabs subjected to wheel loads.

8.11.11 Joint spacing in feet should not exceed twice the slab thickness in inches, e.g., 12 feet by 12 feet for a 6-inch slab thickness. Regardless of slab thickness, joint spacing should not exceed 15 feet.

8.11.12 Lay out joints to form square panels. When this is not practical, rectangular panels can be used if the long dimension is no more than 1.5 times the short.

8.11.13 Isolation (expansion) joints should extend the full depth and should be used only to isolate fixed objects abutting or within paved areas.

8.11.14 Pavement section design assumes that proper maintenance such as sealing and repair of localized distress will be performed on a periodic basis.

8.12 Slopes, Shoring and Temporary Excavations

8.12.1 It is the responsibility of the contractor to provide safe working conditions with respect to excavation slope stability. The contractor is responsible for site slope safety, classification of materials for excavation purposes, and maintaining slopes in a safe manner during construction. The grades, classification and height recommendations presented for temporary slopes are for consideration in preparing budget estimates and evaluating construction procedures.

8.12.2 Temporary excavations should be constructed in accordance with CAL OSHA requirements. Temporary cut slopes should not be steeper than 2:1, horizontal to vertical, and flatter if possible. If excavations cannot meet these criteria, the temporary excavations should be shored.

8.12.3 In no case should excavations extend below a 2H to 1V zone below existing utilities, foundations, gravel backfill associated with the stormwater infiltration system and/or floor slabs which are to remain after construction. Excavations which are required to be advanced below the 2H to 1V envelope should be shored to support the soils, foundations, and slabs.

8.12.4 All soils disturbed as part of the shoring removal shall be over-excavated and compacted as engineered fill. In addition, all cavities and void space resulting from the shoring removal activity shall be backfilled with engineered fill or a controlled density fill material to backfill the voids created by removal of the shoring. All voids resulting from removal of shoring shall be backfilled and all soils disturbed from the shoring removal shall be over-excavated and compacted as engineered fill.

8.12.5 Excavation stability should be monitored by the contractor. Slope gradient estimates provided in this report do not relieve the contractor of the responsibility for excavation safety. In the event that tension cracks or distress to the structure occurs, during or after excavation, the owner should be notified immediately and the contractor should take appropriate actions to minimize further damage or injury.

8.13 Utility Trenches

8.13.1 The utility trench subgrade should be prepared by excavation of a neat trench without disturbance to the bottom of the trench. If sidewalls are unstable, the Contractor shall either slope the excavation to create a stable sidewall or shore the excavation. All trench subgrade soils disturbed during excavation, such as by accidental over-excavation of the trench bottom, or by excavation equipment with cutting teeth, should be compacted to a minimum of 92 percent relative compaction prior to placement of bedding material. The Contractor is responsible for notifying Moore Twining when these conditions occur and arrange for Moore Twining to observe and test these areas prior to placement of pipe bedding. The Contractor shall use such equipment as necessary to achieve a smooth undisturbed native soil surface at the bottom of the trench with no loose material at the bottom of the trench. The Contractor shall either remove all loose soils or compact the loose soils as engineered fill prior to placement of bedding, pipe and backfill of the trench.

8.13.2 The trench width, type of pipe bedding, the type of initial backfill, and the compaction requirements of bedding and initial backfill material for utility trenches (storm drainage, sewer, water, electrical, gas, cable, phone, irrigation, etc.) should be specified by the project Civil Engineer or applicable design professional in compliance with the manufacturer's requirements, governing agency requirements and this report, whichever is more stringent. The contractor

is responsible for contacting the governing agency to determine the requirements for pipe bedding, pipe zone and final backfill. The contractor is responsible for notifying the Owner and Moore Twining if the requirements of the agency and this report conflict, the most stringent applies. For flexible polyvinylchloride (PVC) pipes, these requirements should be in accordance with the manufacturer's requirements or ASTM D-2321, whichever is more stringent, assuming a hydraulic gradient exists (gravel, rock, crushed gravel, etc. cannot be used as backfill on the project). The width of the trench should provide a minimum clearance of 8 inches between the sidewalls of the pipe and the trench, or as necessary to provide a trench width that is 12 inches greater than 1.25 times the outside diameter of the pipe, whichever is greater. As a minimum, the pipe bedding should consist of 4 inches of compacted (92 percent relative compaction) select sand with a minimum sand equivalent of 30 and meeting the following requirements: 100 percent passing the 1/4 inch sieve, a minimum of 90 percent passing the No. 4 sieve and not more than 10 percent passing the No. 200 sieve. The haunches and initial backfill (12 inches above the top of pipe) should consist of a select sand meeting these sand equivalent and gradation requirements that is placed in maximum 6-inch thick lifts and compacted to a minimum relative compaction of 92 percent using hand equipment. The final fill (12 inches above the pipe to the surface) should be on-site or imported, non-expansive materials moisture conditioned and compacted per sections 8.4.4 and 8.4.5 of this report. The project civil engineer should take measures to control migration of moisture in the trenches such as slurry collars, etc.

8.13.3 If ribbed or corrugated HDPE or metal pipes are used on the project, then the backfill should consist of select sand with a minimum sand equivalent of 30, 100 percent passing the 1/4 inch sieve, a minimum of 90 percent passing the No. 4 sieve and not more than 10 percent passing the No. 200 sieve. The sand shall be placed in maximum 6-inch thick lifts, extending to at least 1 foot above the top of pipe, and compacted to a minimum relative compaction of 92 percent using hand equipment. Prior to placement of the pipe, as a minimum, the pipe bedding should consist of 4 inches of compacted (92 percent relative compaction) sand meeting the above sand equivalent and gradation requirements for select sand bedding. The width of the trench should meet the requirements of ASTM D2321 listed in table below (minimum manufacturer requirements), or as necessary to provide sufficient space to achieve the required compaction, whichever is greater. As an alternative to the trench width recommended above and the use of the select sand bedding, a lesser trench width for HDPE pipes may be used if the trench is backfilled with a 2-sack sand-cement slurry from the bottom of the trench to 1 foot above the top of the pipe.

Table No. 7
Minimum Trench Widths for HDPE Pipe with Sand Bedding Initial Backfill

Inside Diameter of HDPE Pipe (inches)	Outside Diameter of HDPE Pipe (inches)	Minimum Trench Width (inches) per ASTM D2321
12	14.2	30
18	21.5	39
24	28.4	48
36	41.4	64
48	55	80

8.13.4 Open graded gravel and rock material such as ¾-inch crushed rock or ½-inch crushed rock should not be used as backfill including trench backfill. In the event gravel or rock is required by a regulatory agency for use as backfill (Contractor to obtain a letter from the agency stating the requirement for rock and/or gravel as backfill), all open graded materials shall be fully encased in a geotextile filter fabric, such as Mirafi 140N, to prevent migration of fine grained soils into the porous material. Gravel and rock cannot be used without the written approval of Moore Twining. If the contractor elects to use crushed rock (and if approved by Moore Twining), the contractor will be responsible for slurry cut off walls at the locations directed by Moore Twining. Crushed rock should be placed in thin (less than 8 inch) lifts and densified with a minimum of three (3) passes using a vibratory compactor.

8.13.5 Utility trench backfill placed in or adjacent to building areas, exterior slabs or pavements should be placed in 8 inch lifts, moisture conditioned and compacted per the recommendations of section 8.4.4 and 8.4.5 of this report. Lift thickness can be increased if the contractor can demonstrate the minimum compaction requirements can be achieved. The contractor should use appropriate equipment and methods to avoid damage to utilities and/or structures during placement and compaction of the backfill materials.

8.13.6 On-site soils and approved imported engineered fill may be used as final backfill (12 inches above the pipe to the ground surface) in trenches below the required imported non-expansive fill.

8.13.7 Jetting of trench backfill is not allowed to compact the backfill soils.

8.13.8 Where utility trenches extend from the exterior to the interior limits of a building, lean concrete should be used as backfill material for a minimum distance of 2 feet laterally on each side of the exterior building line to prevent the trench from acting as a conduit to exterior surface water.

8.13.9 Storm drains and/or utility lines should be designed to be "watertight." If encountered, leaks should be immediately repaired. Leaking storm drain and/or utility lines could result in trench failure, sloughing and/or soil movement causing damage to surface and subsurface structures, pavements, flatwork, etc. In addition, landscaping irrigation systems should be monitored for leaks. The Contractor is required to video inspect or pressure test the wet utilities prior to placement of foundations, slabs-on-grade or pavements to verify that the pipelines are constructed properly and are "watertight." The Contractor shall provide the Owner a copy of the results of the testing. The Contractor is required to repair all noted deficiencies at no cost to the owner.

8.13.10 Utility trenches should not be constructed within a zone defined by a line that extends at an inclination of 2 horizontal to 1 vertical downward from the bottom of building foundations.

8.14 Corrosion Protection

8.14.1 Based on the corrosion severity ratings listed in the Table No. 2 of section 6.8 of this report, the analytical results of sample analyses indicate the sample had a resistivity value of 4,600 ohms-centimeter, with a pH value of 8.3. Based on the resistivity values, the soils exhibit a "corrosive" corrosion potential. Therefore, buried metal objects should be protected in accordance with the manufacturer's recommendations based on a "corrosive" corrosion potential. The evaluation was limited to the effects of soils to metal objects; corrosion due to other potential sources, such as stray currents and groundwater, was not evaluated. If piping or concrete are placed in contact with deeper soils or engineered fill, these soils should be analyzed to evaluate the corrosion potential of these soils.

8.14.2 Based on Table 19.3.1.1 - Exposure categories and classes from Chapter 19 of ACI 318, the sulfate concentration from chemical testing of soil samples falls in the S0 classification (less than 0.10 percent by weight) for concrete. Therefore, there are no restrictions required regarding the type, water-to-cement ratio, and strength of the concrete used for foundation and slabs due to the sulfate content. However, a low water to cement ratio is recommended for slabs on grade as recommended in the "Interior Slab on Grade" section of this report.

8.14.3 These soil corrosion data should be provided to the manufacturers or suppliers of materials that will be in contact with soils (pipes or ferrous metal objects, etc.) to provide assistance in selecting the protection and materials for the proposed products or materials. If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a

professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to design parameters. Moore Twining is not a corrosion engineer; thus, cannot provide recommendations for mitigation of corrosive soil conditions. It is recommended that a corrosion engineer be consulted for the site specific conditions.

9.0 DESIGN CONSULTATION

9.1 Moore Twining should be retained to review those portions of the contract drawings and specifications that pertain to earthwork operations and foundations prior to finalization to determine whether they are consistent with our recommendations. This service is not part of this current contractual agreement.

9.2 It is the client's responsibility to provide plans and specification documents for our review prior to their issuance for construction bidding purposes.

9.3 If Moore Twining is not retained for review, we assume no liability for the misinterpretation of our conclusions and recommendations. This review is documented by a formal plan/specification review report provided by Moore Twining.

10.0 CONSTRUCTION MONITORING

10.1 It is recommended that Moore Twining be retained to observe the excavation, earthwork, and foundation phases of work to determine that the subsurface conditions are compatible with those used in the analysis and design.

10.2 Moore Twining can conduct the necessary observation and field testing to provide results so that action necessary to remedy indicated deficiencies can be taken in accordance with the plans and specifications. Upon completion of the work, a written summary of our observations, field testing and conclusions will be provided regarding the conformance of the completed work to the intent of the plans and specifications. This service is not, however, part of this current contractual agreement.

10.3 In the event that the earthwork operations for this project are conducted such that the construction sequence is not continuous, (or if construction operations disturb the surface soils) it is recommended that the exposed subgrade that will receive floor slabs be tested to verify adequate compaction and/or moisture conditioning. If adequate compaction or moisture contents are not verified, the fill soils should be over-excavated, scarified, moisture conditioned and compacted are recommended in the Recommendations of this report.

10.4 The construction monitoring is an integral part of this investigation. This phase of the work provides Moore Twining the opportunity to verify the subsurface conditions interpolated from the soil borings and make alternative recommendations if the conditions differ from those anticipated.

10.5 If Moore Twining is not retained to provide engineering observation and field-testing services during construction activities related to earthwork, foundations, pavements and trenches; then, Moore Twining will not be responsible for compliance of any aspect of the construction with our recommendations or performance of the structures or improvements if the recommendations of this report are not followed. It is recommended that if a firm other than Moore Twining is selected to conduct these services that they provide evidence of professional liability insurance satisfactory to the owner and review this report. After their review, the firm should, in writing, state that they understand the conclusions and recommendations of this report and agree to conduct sufficient observations and testing to ensure the construction complies with this report's recommendations. Moore Twining should be notified, in writing, if another firm is selected to conduct observations and field-testing services prior to construction.

10.6 Upon the completion of work, a final report should be prepared by Moore Twining. This report is essential to ensure that the recommendations presented are incorporated into the project construction, and to note any deviations from the project plans and specifications. The client should notify Moore Twining upon the completion of work to prepare a final report summarizing the observations during site preparation activities relative to the recommendations of this report. This service is not, however, part of this current contractual agreement.

11.0 NOTIFICATION AND LIMITATIONS

11.1 The conclusions and recommendations presented in this report are based on the information provided regarding the proposed construction, and the results of the field and laboratory investigation, combined with interpolation of the subsurface conditions between boring locations. The nature and extent of subsurface variations between borings may not become evident until construction.

11.2 If variations or undesirable conditions are encountered during construction, Moore Twining should be notified promptly so that these conditions can be reviewed and our recommendations reconsidered where necessary. It should be noted that unexpected conditions frequently require additional expenditures for proper construction of the project.

11.3 If the proposed construction is relocated or redesigned, or if there is a substantial lapse of time between the submission of our report and the start of work (over 12 months) at the site, or if conditions have changed due to natural cause or construction operations at or adjacent to the site, the conclusions and recommendations contained in this report should be considered invalid unless the changes are reviewed and our conclusions and recommendations modified or approved in writing.

11.4 Changed site conditions, or relocation of proposed structures, may require additional field and laboratory investigations to determine if our conclusions and recommendations are applicable considering the changed conditions or time lapse.

11.5 The conclusions and recommendations contained in this report are valid only for the project discussed in Section 3.3, Anticipated Construction. The use of the information and recommendations contained in this report for structures on this site not discussed herein or for structures on other sites not discussed in this report is not recommended. The entity or entities that use or cause to use this report or any portion thereof for other structures or site not covered by this report shall hold Moore Twining, its officers and employees harmless from any and all claims and provide Moore Twining's defense in the event of a claim.

11.6 This report is issued with the understanding that it is the responsibility of the client to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, designers, contractors, subcontractors, and other parties having interest in the project so that the steps necessary to carry out these recommendations in the design, construction and maintenance of the project are taken by the appropriate party.

11.7 This report presents the results of a geotechnical engineering investigation only and should not be construed as an environmental audit or study.

11.8 Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally-accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.

11.9 Reliance on this report by a third party (i.e., that is not a party to our written agreement) is at the party's sole risk. If the project and/or site are purchased by another party, the purchaser must obtain written authorization and sign an agreement with Moore Twining in order to rely upon the information provided in this report for design or construction of the project.

We appreciate the opportunity to be of service. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,
MOORE TWINING ASSOCIATES, INC.
Geotechnical Engineering Division

Shaun Reich, EIT
Project Engineer

Read L. Andersen, RGE
Geotechnical Division Manager

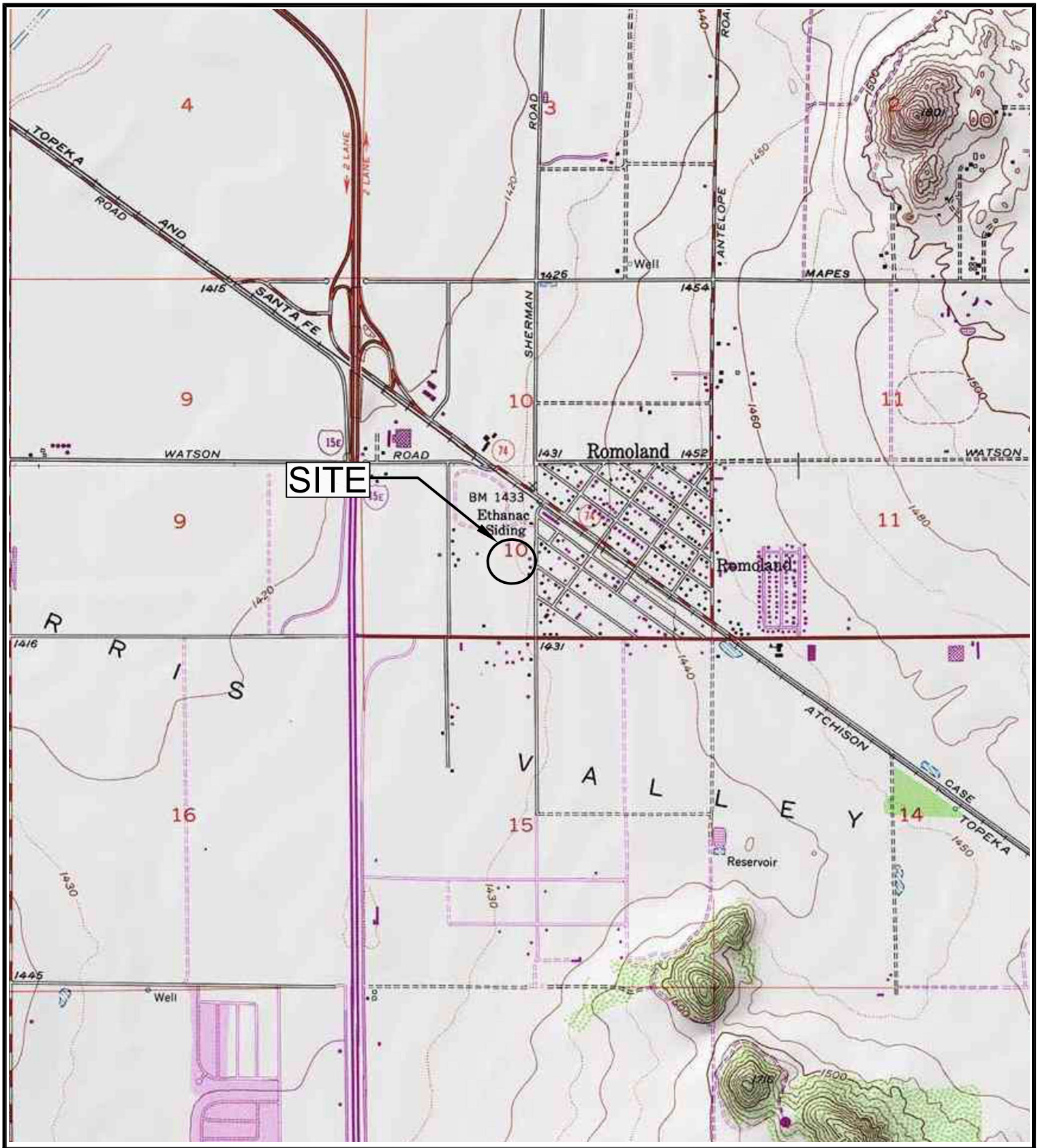


APPENDIX A

DRAWINGS

Drawing No. 1 - Site Location Map

Drawing No. 2 - Test Boring Location Map



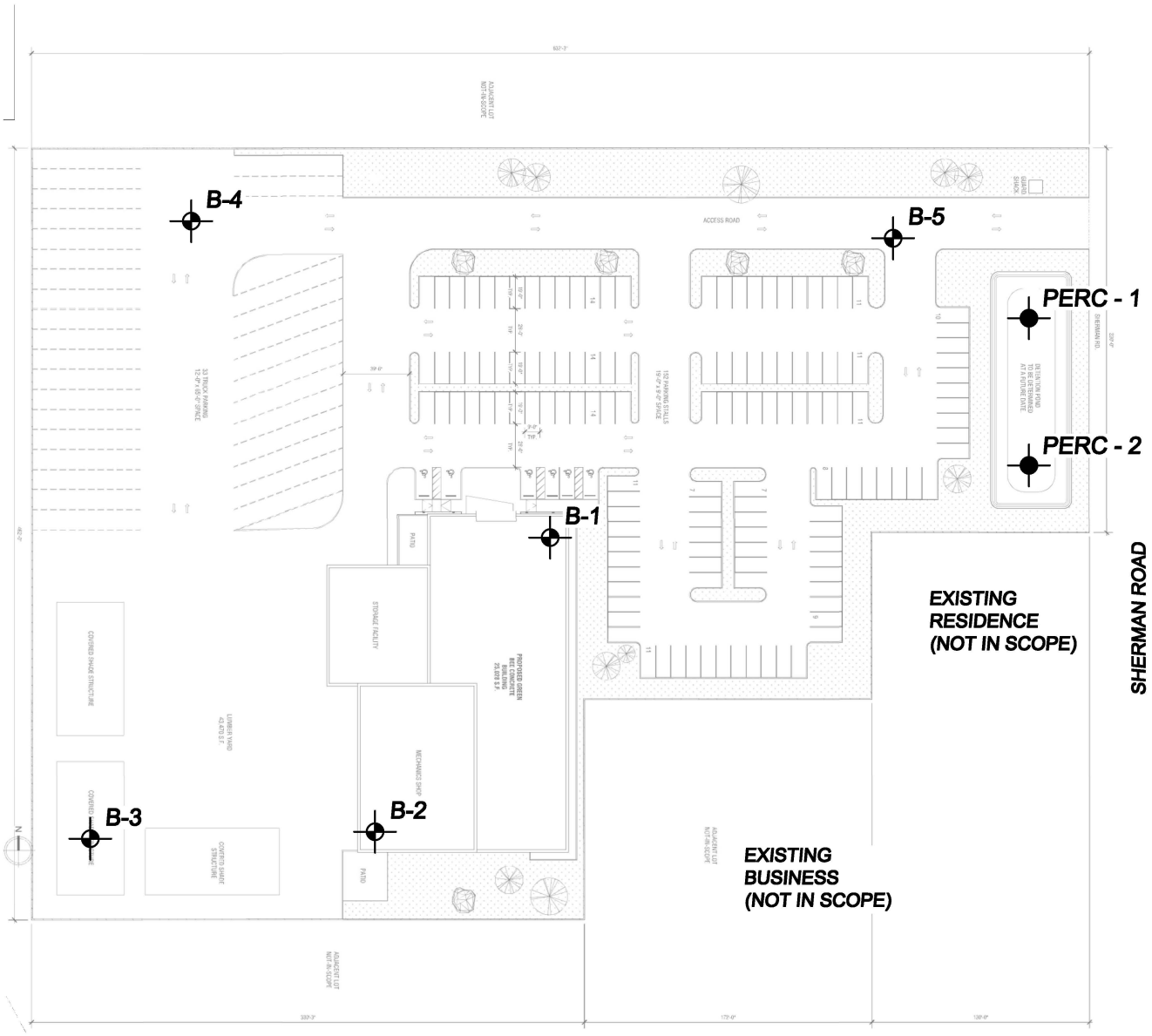
SOURCE: U.S.G.S. TOPOGRAPHIC MAP, 7 ½ MINUTE SERIES
ROMOLAND, CALIFORNIA QUADRANGLE 1976, PHOTOREVISED 1979

0 2000
APPROXIMATE SCALE
IN FEET

SITE LOCATION MAP
PROPOSED "GREEN BEE" COMMERCIAL DEVELOPMENT
25775 SHERMAN ROAD
PERRIS, CALIFORNIA

FILE NO.:	DATE:
85502-01-01	10/17/2024
DRAWN BY: RM	APPROVED BY:
PROJECT NO. G85502.01	DRAWING NO. 1

MOORE TWINING ASSOCIATES, INC.



APPROXIMATE TEST BORING LOCATION

APPROXIMATE PERCOLATION TEST LOCATION

N

0 100

APPROXIMATE SCALE
IN FEET

TEST BORING AND PERCOLATION TEST LOCATION MAP
PROPOSED "GREEN BEE" COMMERCIAL DEVELOPMENT
25775 SHERMAN ROAD
PERRIS, CALIFORNIA

FILE NO. 85502-01-02	DATE DRAWN: 10/17/2024
DRAWN BY: RM	APPROVED BY:
PROJECT NO. G85502.01	DRAWING NO. 2

MOORE TWINING ASSOCIATES, INC.

APPENDIX B

LOGS OF BORINGS

This appendix contains the final logs of borings. These logs represent our interpretation of the contents of the field logs and the results of the field and laboratory tests.

The logs and related information depict subsurface conditions only at these locations and at the particular time designated on the logs. Soil conditions at other locations may differ from conditions occurring at these test boring locations. Also, the passage of time may result in changes in the soil conditions at these test boring locations.

In addition, an explanation of the abbreviations used in the preparation of the logs and a description of the Unified Soil Classification System are provided at the end of Appendix B.

MOORE TWINING ASSOCIATES, INC.

Test Boring: B-1

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

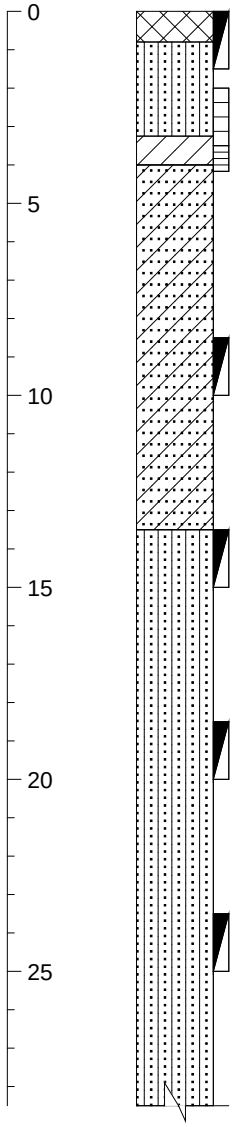
Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E



ELEVATION/ DEPTH (feet)	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
	FILL	FILL - SILTY SAND WITH		12	
	SM	GRAVEL; medium dense, moist, fine to coarse grained, dark brown, with some dried grasses in upper 3		27	
	CL	inches		>50	
	SC	At 0.8 feet - NATIVE - SILTY SAND; medium dense, moist, fine grained, brown			
		At 2 feet - With some fine gravel, increase in grain size			
		At 3.25 feet - SANDY LEAN CLAY; very stiff, moist, medium plasticity, brown		70	
		At 3.5 feet - Hard			
		At 4 feet - CLAYEY SAND; very dense, damp, fine grained, reddish brown, with moderate cementation			
	SM	At 8.5 feet - No change, still exhibits moderate cementation	At 13.5 feet - Sample has appearance of extremely weathered decomposed granitic rock; increase in difficulty to drill	20	
		SILTY SAND; medium dense, moist, fine to coarse grained, reddish brown, with some fine gravel, no cementation			
		Dense		50	
		Increase in fine grained sand and decrease in medium to coarse sand and fine gravel content	Increase in difficulty to drill	41	

Notes: *Ground surface covered by gravel, dried grasses and scattered debris including gravel to cobble-size pieces of asphalt concrete, wood, plastic, metal, brick, fabric, etc.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: B-1

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
30	18/6 23/6 29/6		Very dense, fine to medium grained, brown Fine grained between 28.75 feet and 29.75 feet Fine to coarse grained		52	
35	20/6 19/6 27/6		Dense, light brown	Decrease in difficulty to drill	46	
40	18/6 20/6 26/6				46	
45	15/6 14/6 22/6		Increase in medium to coarse grained sand content, with a little fine gravel		36	
50	18/6 23/6 32/6		Very dense, decrease in gravel content, increase in fines content, trace clay Bottom of Boring B-1 at 50 feet		55	
55						

Notes: *Ground surface covered by gravel, dried grasses and scattered debris including gravel to cobble-size pieces of asphalt concrete, wood, plastic, metal, brick, fabric, etc.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: B-2

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

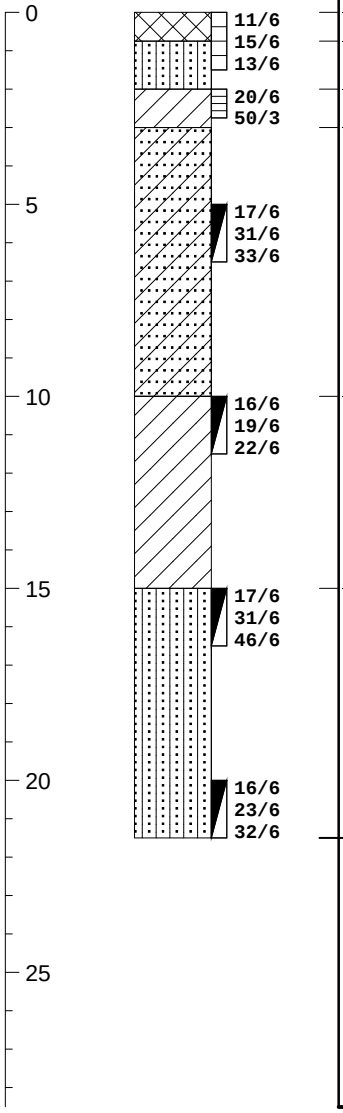
Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
		FILL	FILL - SILTY SAND WITH GRAVEL; medium dense, damp, fine to coarse grained, light brown, trace rootlets		28	
		SM				
		CL			>50	
		SC	At 0.75 feet - NATIVE - SILTY SAND; medium dense, moist, fine grained, brown		64	
			At 2 feet - SANDY LEAN CLAY; hard, moist, medium to high plasticity, brown, with moderate cementation			
		CL	At 3 feet - CLAYEY SAND; moist, fine to medium grained, reddish brown		41	
			At 5 feet - Dense LEAN CLAY WITH SAND; hard, moist, medium plasticity, reddish brown			
		SM	SILTY SAND; very dense, moist, fine to coarse grained, reddish brown, with some fine gravel	Sample has appearance of extremely weathered decomposed granitic rock	77	
			With trace clay		55	
			Bottom of Boring B-2 at 21.5 feet			

Notes: *Ground surface covered by gravel, dried grasses and weeds, and gravel to cobbles size debris including asphalt concrete, wood, metal and plastic.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: B-3

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0	6/6 5/6 6/6	FILL SC	FILL - SILTY SAND WITH GRAVEL; medium dense, damp, fine to coarse grained, light brown, trace rootlets		11	
5	14/6 40/6 50/4.5	CL	At 0.5 feet - NATIVE - CLAYEY SAND; medium dense, moist, fine grained, brown		>90	
			At 3.5 feet - SANDY LEAN CLAY; hard, moist, medium to high plasticity, reddish brown, moderately cemented			
10	17/6 33/6 47/6		At 8.5 feet - Still moderately cemented		80	
15	12/6 17/6 23/6	SC	CLAYEY SAND; dense, moist, fine to coarse grained, brown, with some fine gravel	Sample has appearance of extremely weathered decomposed granitic rock	40	
			Bottom of Boring B-3 at 15 feet			
20						
25						

Notes: *Several stockpiles about 1 to 2 feet in height noted in southwest corner of site (42'x45' area) near boring B-3 that included gravel, dried grasses and asphalt concrete, plastic, wood, styrofoam, and metal debris and other trash.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: B-4

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0	5/6 6/6 5/6	FILL SM	FILL - SILTY SAND; medium dense, moist, fine to coarse grained, light brown to dark brown		11	
			At 0.5 feet - NATIVE - SILTY SAND; medium dense, moist, fine grained, brown			
5	34/6 50/3	CL	At 3.5 feet - LEAN CLAY; hard, damp, medium plasticity, reddish brown, with strong cementation		>50	
	9/6 14/6 20/6	SM	SILTY SAND; dense, moist, fine to coarse grained, reddish brown	Sample has appearance of extremely weathered decomposed granitic rock	34	
10			Bottom of Boring B-4 at 10 feet			
15						
20						
25						

Notes: *Ground surface covered by mostly gravel, asphalt concrete and wood debris and scattered palm tree leaves.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: B-5

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0	12/6 7/6 8/6	FILL	FILL - SILTY SAND; medium dense, damp, fine to coarse grained, gray, with some fine gravel		15	
	4/6 4/6 5/6	SM CL			9	
5	6/6 13/6 17/6	SC	At 0.5 feet - NATIVE - SILTY SAND; medium dense, moist, fine grained, brown At 1.5 feet - Loose At 2.25 feet - LEAN CLAY; stiff, moist, medium plasticity, brown		30	
	8/6 11/6 18/6	CL	At 5 feet - CLAYEY SAND; medium dense, moist, fine to medium grained, brown		29	
10			At 8.5 feet - SANDY LEAN CLAY; very stiff, moist, low to medium plasticity, reddish brown Bottom of Boring B-5 at 10 feet			
15						
20						
25						

Notes: *Ground surface covered by mostly gravel and asphalt concrete debris.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: P-1

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

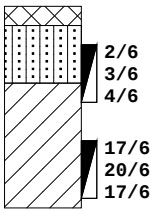
Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	FILL - SILTY SAND; damp, fine to coarse grained gray, with some fine gravel		7	
		SM				
		CL	At 0.5 feet - NATIVE - SILTY SAND; moist, fine grained, brown		37	
			At 1 foot - Loose			
5			At 2 feet - SANDY LEAN CLAY; medium stiff, moist, medium to high plasticity, brown			
			At 3.5 feet - Hard			
			Bottom of Percolation Test Boring P-1 at 5.25 feet			
10						
15						
20						
25						

Notes: *Ground surface covered by mostly gravel and asphalt concrete debris and some scattered dried grasses and weeds.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: P-2

Project: Proposed Commercial Development

Project Number: G58802.01

Drilled By: J.C.

Drill Type: CME 75

Auger Type: 8-inch Hollow Stem Augers

Hammer Type: 140 Pound Auto Trip

Logged By: A.H.

Date: September 17, 2024

Elevation: N/A

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	FILL - SILTY SAND; damp, fine to coarse grained, gray, with some fine gravel			
	45/6 50/2.5	SM	At 0.5 feet - NATIVE - SILTY SAND; moist, fine grained, brown Very dense, with moderate cementation		>50	
5	16/6 26/6 44/6	SC	CLAYEY SAND; very dense, moist, fine grained, brown		70	
			Bottom of Percolation Test Boring P-2 at 7.54 feet			
10						
15						
20						
25						

Notes: *Ground surface covered by mostly gravel and asphalt concrete debris and some scattered dried grasses and weeds. Southeast corner of site includes abundant dried grasses and leaves and a tree stump.*

Figure Number

KEY TO SYMBOLS

Symbol	Description
Strata symbols	
	Fill
	SM: Silty sand
	CL: Lean clay
	SC: Clayey sand
Misc. Symbols	
	Boring continues

Symbol	Description
Soil Samplers	
	Standard penetration test
	California Modified split barrel ring sampler

Notes:

1. Exploratory borings were drilled on 9/17/24 using a CME 75 drill rig equpped with 8" outside diameter hollow stem augers.

2. Groundwater was not encountered during drilling of the borings.

3. Boring locations were drilled where staked based on locations determined from global positioning system (GPS) coordinates.

4. These logs are subject to the limitations, conclusions, and recommendations in this report.

5. The "N-value" reported for the California Modified Split Barrel Sampler is the uncorrected field blow count. This value should not be interpreted as an SPT equivalent N-value.

6. Abbreviations used are:

DD = Natural dry density (pcf)	LL = Liquid Limit (%)
+4 = Percent retained on the No. 4 sieve (%)	PI = Plasticity Index (%)
-200 = Percent passing the No. 200 sieve (%)	EI = Expansion Index
Sand = Percent passing the No. 4 sieve and retained on No. 200 sieve (%)	Gravel = Percent passing 3-inch and retained on No. 4 sieve (%)
SR = Soil resistivity (ohm-cm)	
pH = Soil pH	SS = Soluble sulfates (%)
Cl = Soluble chlorides (%)	O.D. = Outside Diameter
ø = Internal Angle of Friction (degrees)	c = Cohesion (psf)
pcf = pounds per cubic foot	psf = pounds per square foot
N/A = Not applicable	N/E = Not encountered

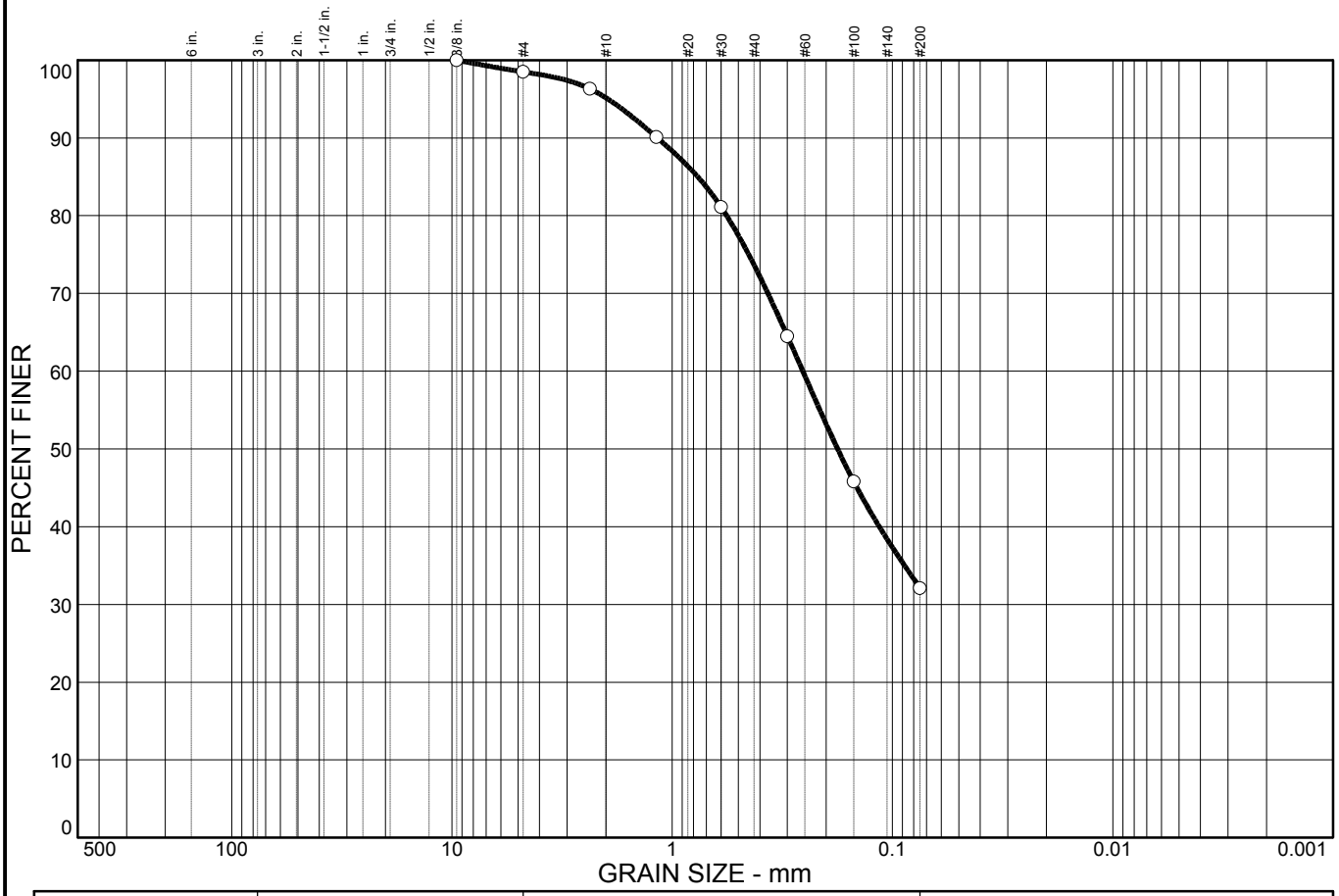
APPENDIX C

RESULTS OF LABORATORY TESTS

This appendix contains the individual results of the following tests. The results of the moisture content and dry density tests are included on the test boring logs in Appendix B. These data, along with the field observations, were used to prepare the final test boring logs in Appendix B.

These Included:	**To Determine:**
Moisture Content (ASTM D2216)	Moisture contents representative of field conditions at the time the sample was taken.
Dry Density (ASTM D2937)	Dry unit weight of sample representative of in-situ or in-place undisturbed condition.
Grain-Size Distribution (ASTM D422)	Size and distribution of soil particles, i.e., sand, gravel and fines (silt and clay).
Atterberg Limits (ASTM D4318)	Determines the moisture content where the soil behaves as a viscous material (liquid limit) and the moisture content at which the soil reaches a plastic state
Expansion Index (ASTM D4829)	Swell potential of soil with increases in moisture content.
Consolidation (ASTM 2435)	The amount and rate at which a soil sample compresses when loaded, and the influence of saturation on its behavior.
Direct Shear (ASTM D3080)	Soil shearing strength under varying loads and/or moisture conditions.
Moisture-Density Relationship (D1557)	The optimum (best) moisture content for compacting soil and the maximum dry unit weight (density) for a given compactive effort.
R-Value (ASTM 2844)	The capacity of a subgrade or subbase to support a pavement section designed to carry a specified traffic load.
Sulfate Content (Cal Test 417)	Percentage of water-soluble sulfate as (SO4) in soil samples. Used as an indication of the relative degree of sulfate attack on concrete and for selecting the cement type.
Chloride Content (Cal Test 422)	Percentage of soluble chloride in soil. Used to evaluate the potential attack on encased reinforcing steel.
Resistivity (ASTM D1125)	The potential of the soil to corrode metal.
pH (Cal Test 643)	The acidity or alkalinity of subgrade material.

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	1.5	3.3	21.5	41.6	32.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	98.5		
#8	96.3		
#16	90.1		
#30	81.1		
#50	64.5		
#100	45.8		
#200	32.1		

* (no specification provided)

Material Description

Silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{85}= 0.766 D_{60}= 0.255 D_{50}= 0.177
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Sample No.: B-1 **Source of Sample:** **Date:** 9/17/24
Location: **Elev./Depth:** 0.8-1.5'

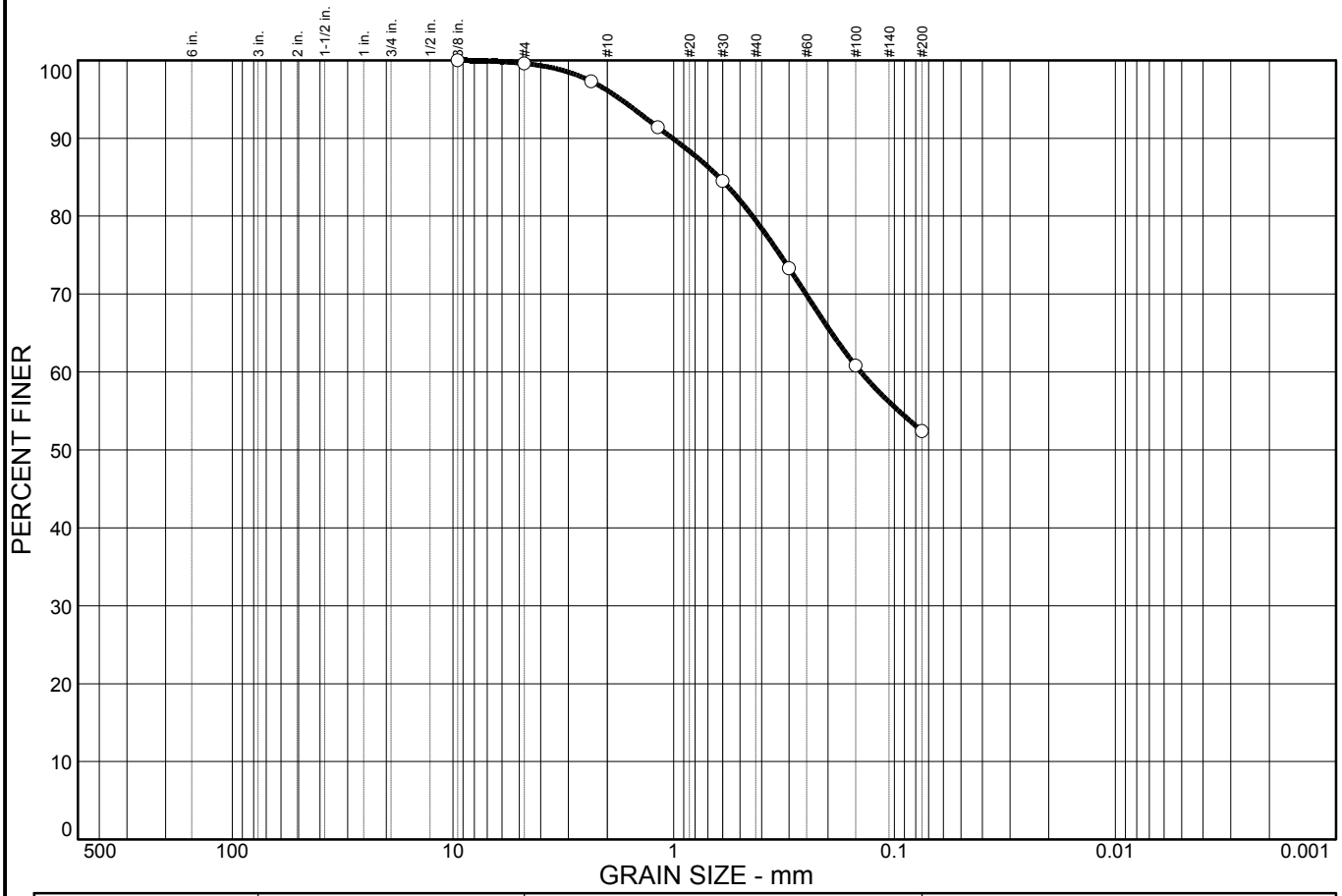
Moore Twining Associates, Inc.

Fresno, CA

Client: PM Design
Project: Proposed Commercial Development

Project No: G85502.01 **Figure**

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.4	3.5	16.7	27.0	52.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	99.6		
#8	97.3		
#16	91.4		
#30	84.5		
#50	73.3		
#100	60.8		
#200	52.4		

* (no specification provided)

Material Description

Sandy lean clay

Atterberg Limits

PL= 13 LL= 22 PI= 9

Coefficients

D_{85}= 0.624 D_{60}= 0.142 D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= CL AASHTO=

Remarks

Sample No.: B-2 **Source of Sample:** **Date:** 9/17/24
Location: **Elev./Depth:** 2-2.75'

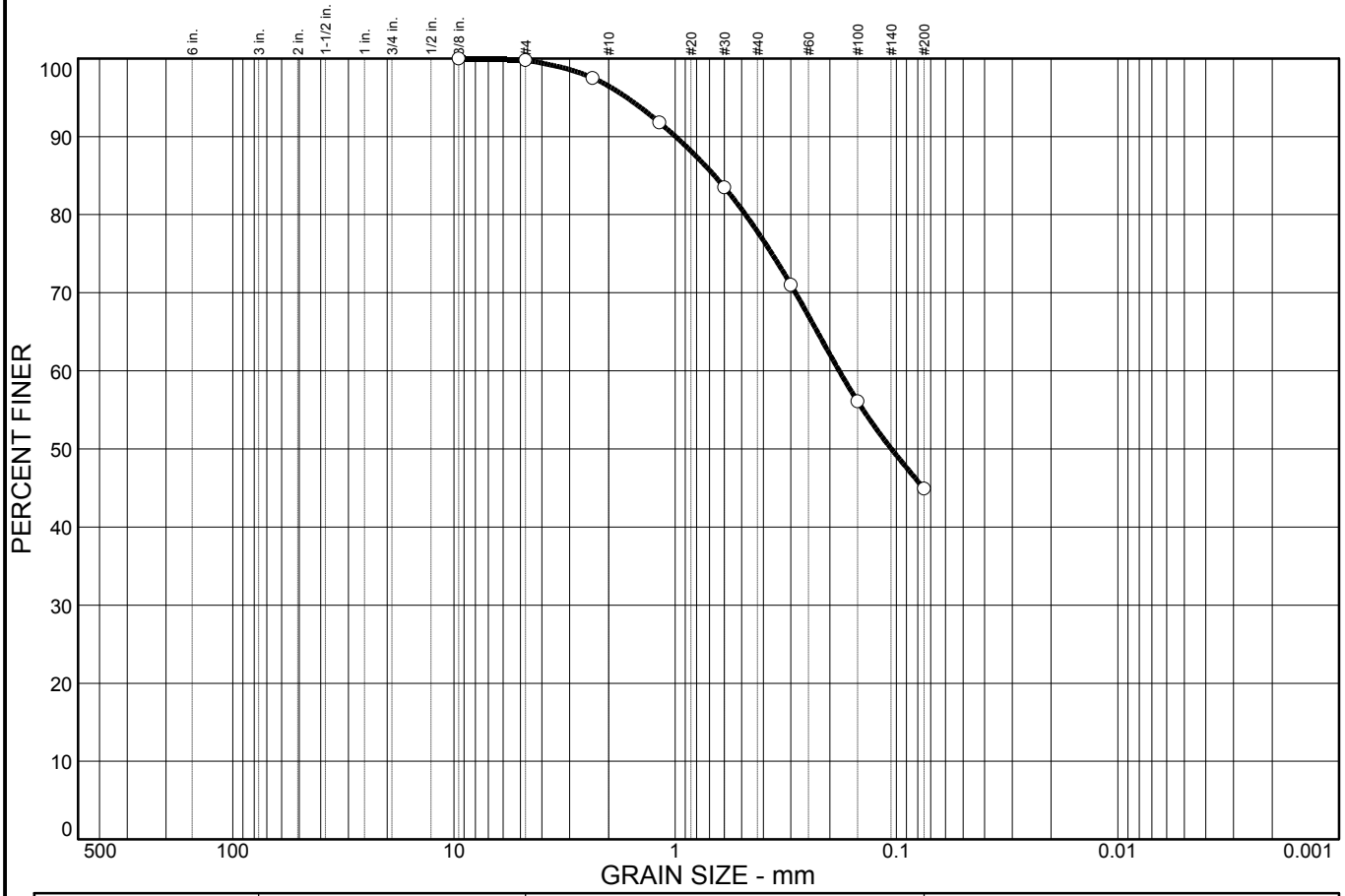
Moore Twining Associates, Inc.

Fresno, CA

Client: PM Design
Project: Proposed Commercial Development

Project No: G85502.01 **Figure**

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.2	3.3	18.6	33.0	44.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	99.8		
#8	97.5		
#16	91.8		
#30	83.5		
#50	71.0		
#100	56.1		
#200	44.9		

* (no specification provided)

Material Description

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.666 D_{60}= 0.182 D_{50}= 0.105
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sample No.: P-1 **Source of Sample:** **Date:** 9/17/24
Location: **Elev./Depth:** 3.5-5'

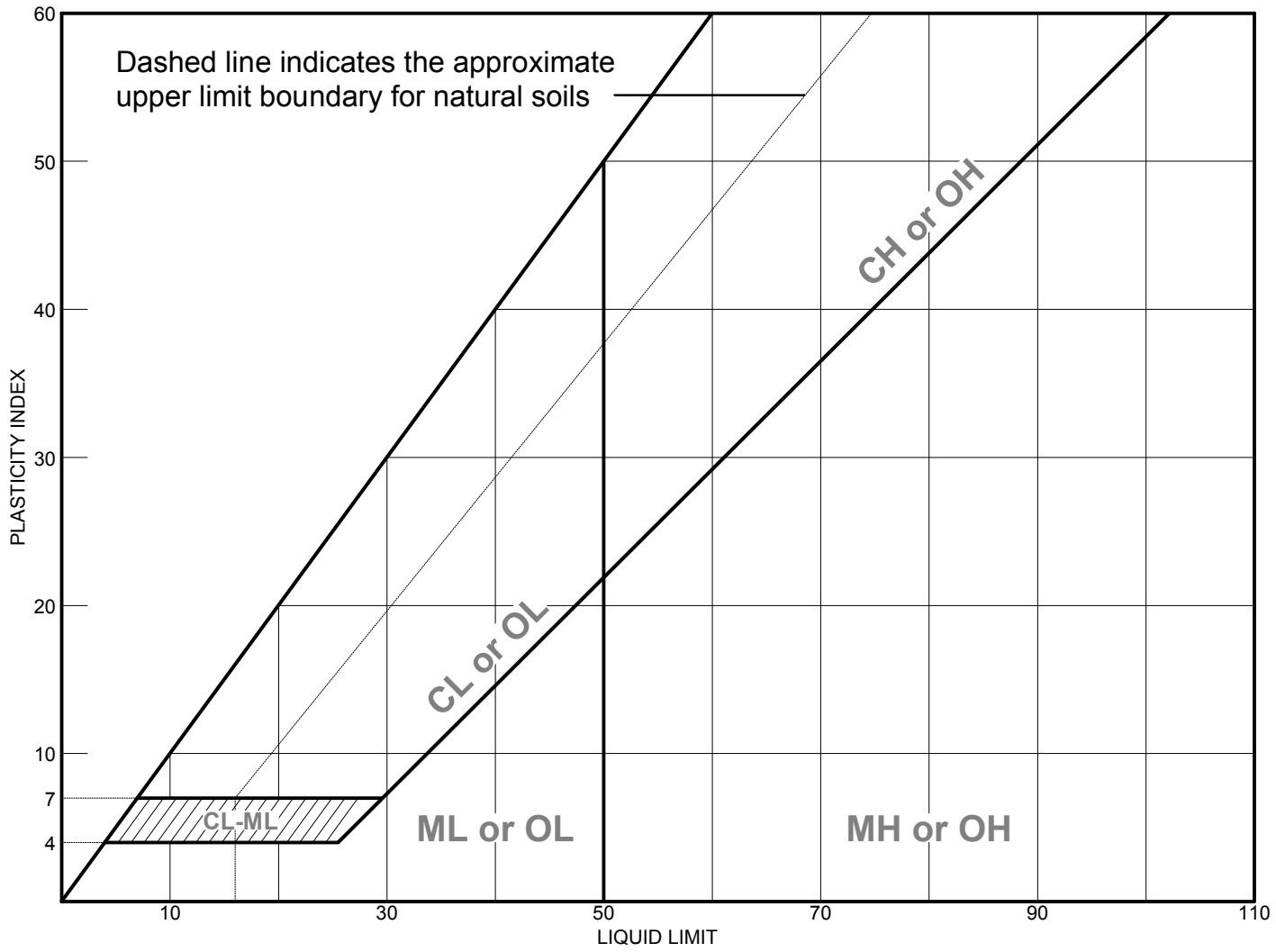
Moore Twining Associates, Inc.

Fresno, CA

Client: PM Design
Project: Proposed Commercial Development

Project No: G85502.01 **Figure**

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Silty sand	NV	NP	NP	73.7	32.1	SM

Project No. G85502.01 **Client:** PM Design

Project: Proposed Commercial Development

● **Source:** **Sample No.:** B-1 **Elev./Depth:** 0.8-1.5'

Remarks:

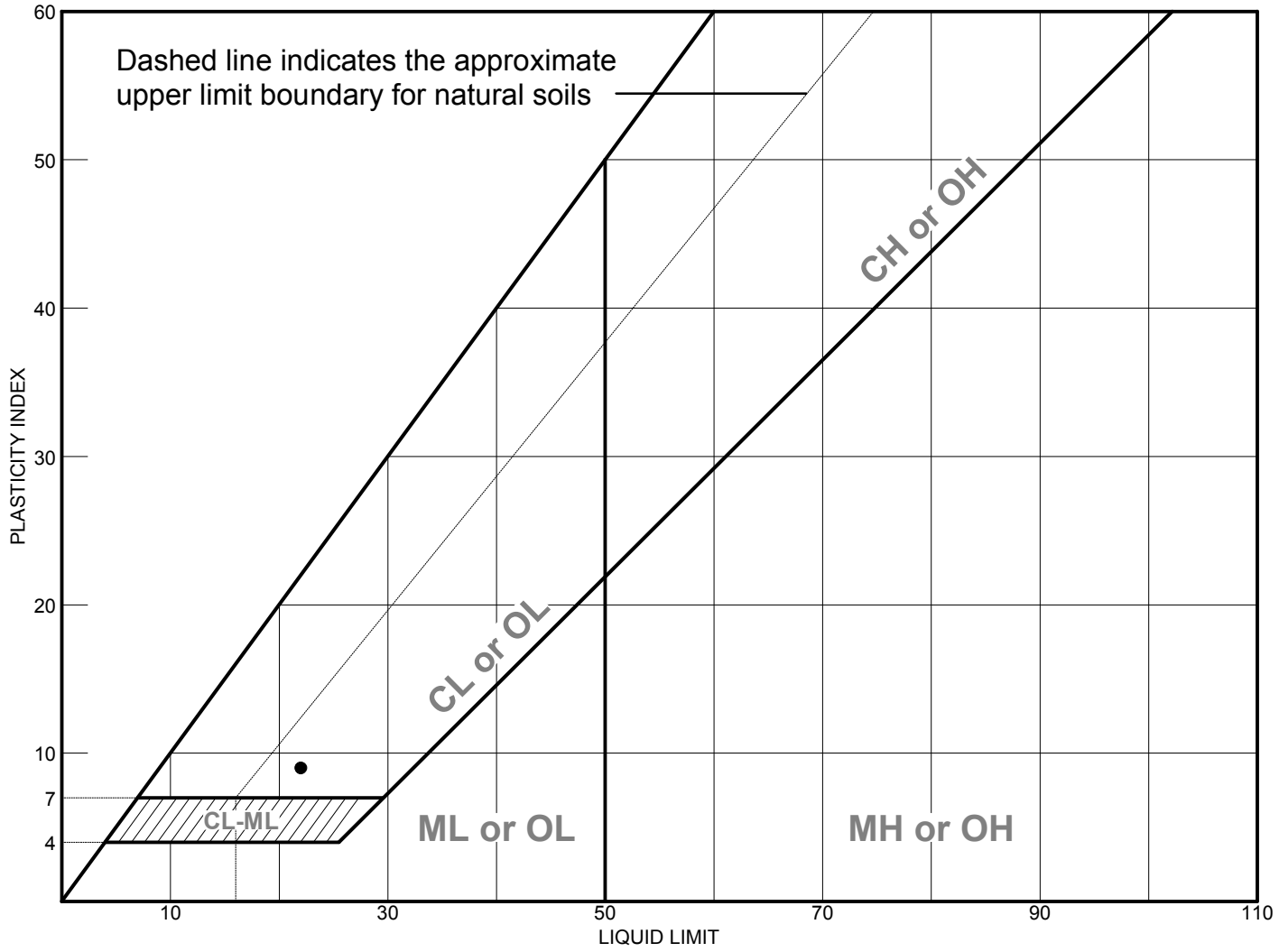
●

Moore Twining Associates, Inc.

Fresno, CA

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Sandy lean clay	22	13	9	79.4	52.4	CL

Project No. G85502.01 **Client:** PM Design

Project: Proposed Commercial Development

● **Source:** **Sample No.:** B-2 **Elev./Depth:** 2-2.75'

Remarks:

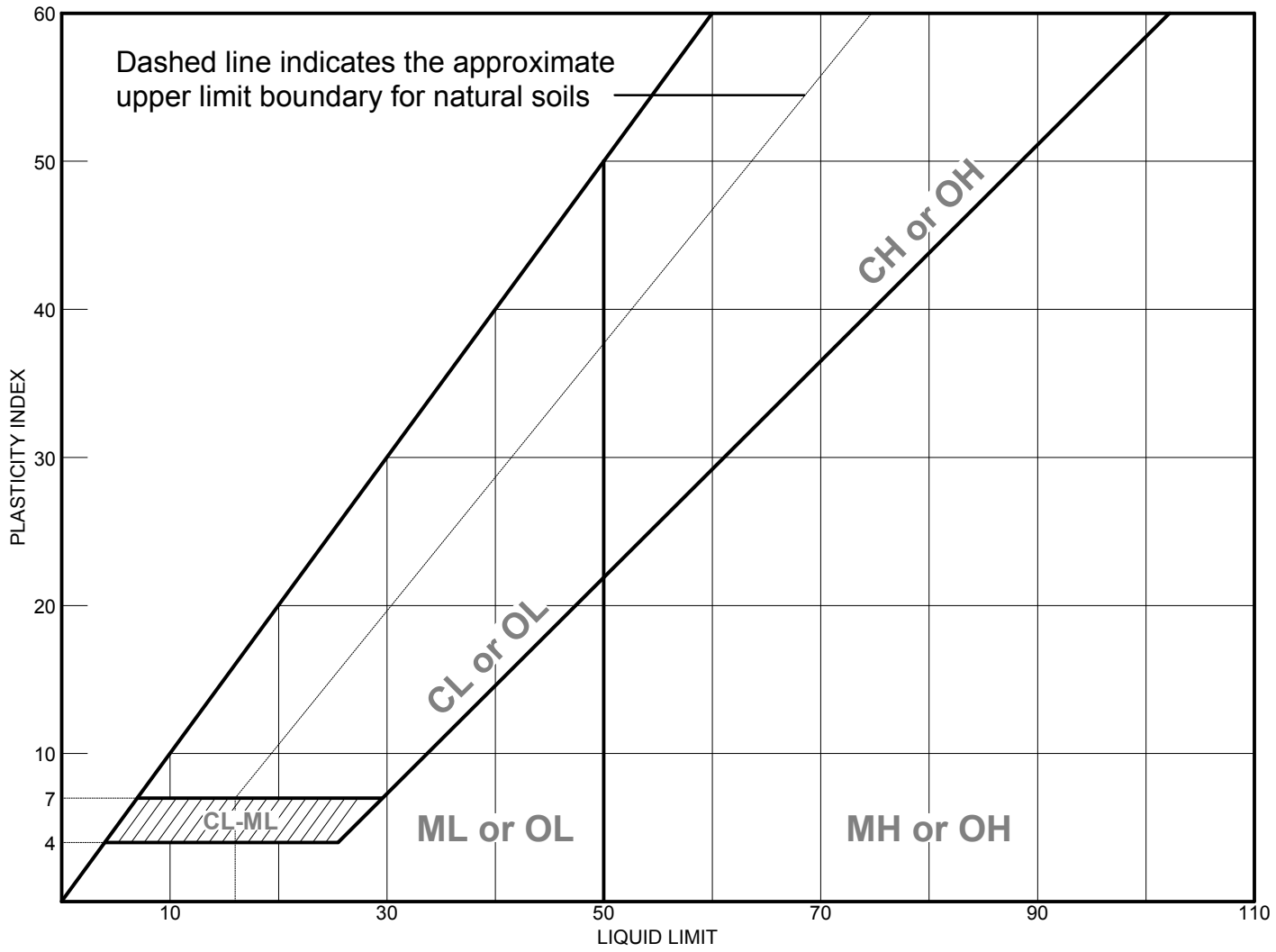
●

Moore Twining Associates, Inc.

Fresno, CA

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Silty sand	NV	NP	NP			SM

Project No. G85502.01 **Client:** PM Design

Project: Proposed Commercial Development

● **Source:** **Sample No.:** B-3 **Elev./Depth:** 0.5-1.5'

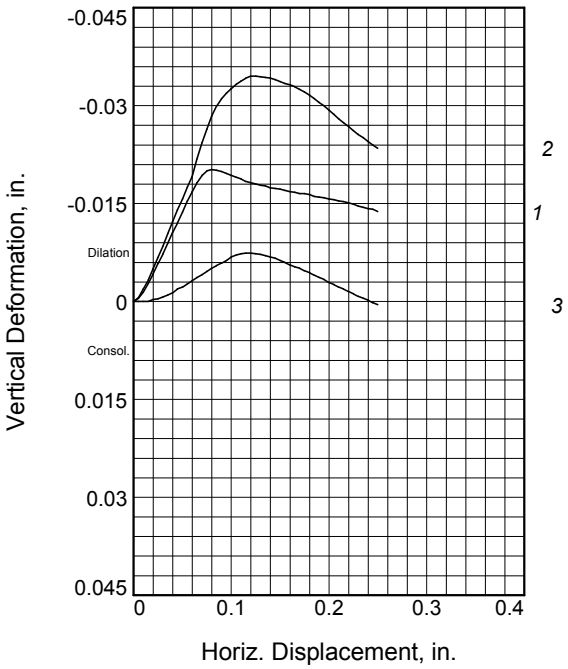
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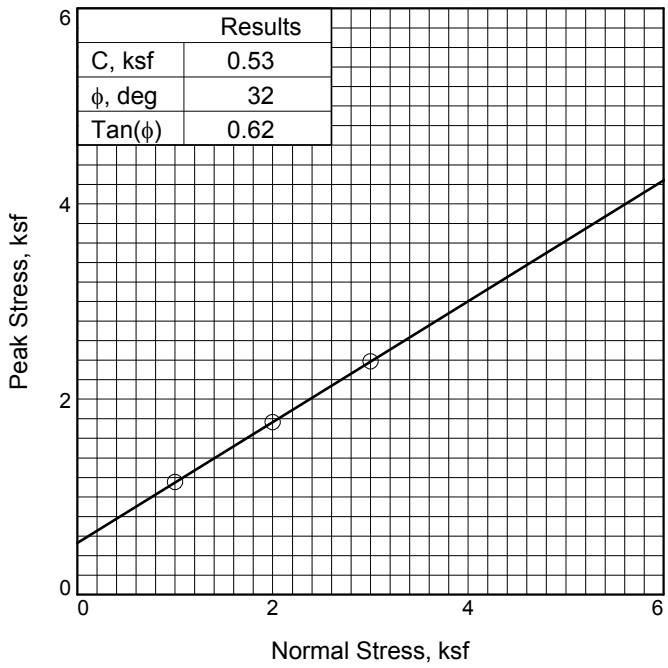
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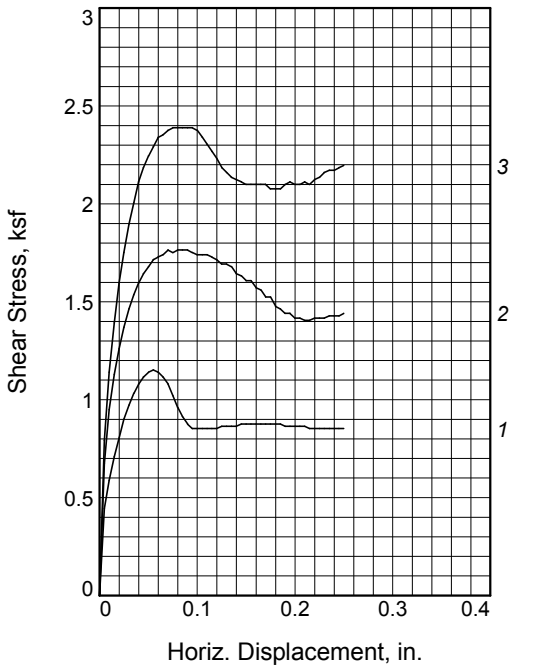
Moore Twining Associates, Inc.

Fresno, CA

Figure







Sample No.		1	2	3
Initial	Water Content, %	7.8	8.2	9.7
	Dry Density, pcf	122.4	119.4	122.1
	Saturation, %	58.9	56.5	72.6
	Void Ratio	0.3515	0.3854	0.3551
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	13.0	14.1	12.9
	Dry Density, pcf	122.4	119.5	122.2
	Saturation, %	98.3	97.3	96.8
	Void Ratio	0.3513	0.3847	0.3537
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	1.00	1.00
Normal Stress, ksf		1.00	2.00	3.00
Peak Stress, ksf		1.15	1.76	2.39
Displacement, in.		0.06	0.07	0.08
Ultimate Stress, ksf				
Displacement, in.				
Strain at peak, %		2.3	2.9	3.1

Sample Type:
Description: Silty sand

Specific Gravity= 2.65
Remarks:

Figure _____

Client: PM Design

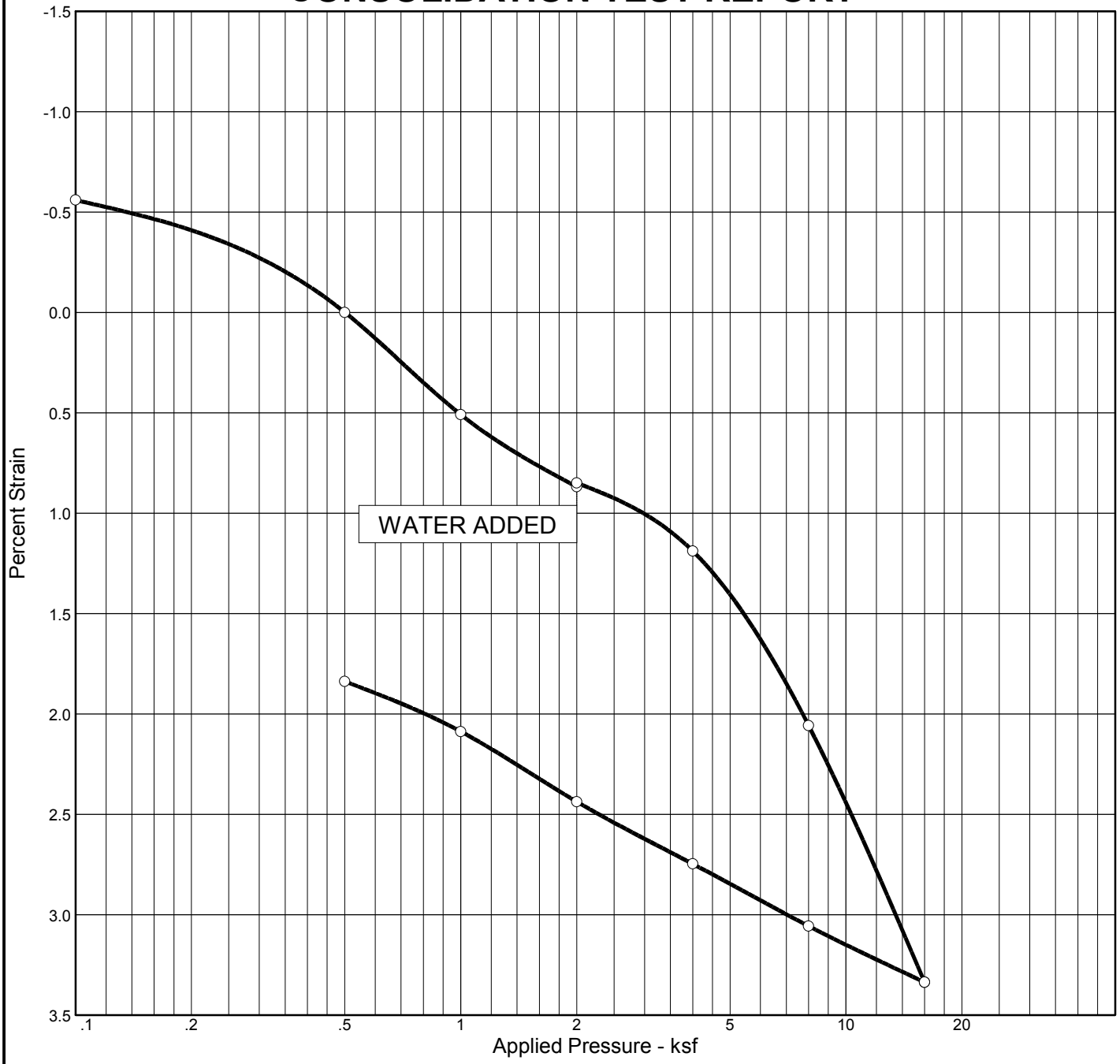
Project: Proposed Commercial Development

Sample Number: B-2 **Depth:** 0-1.5'

Proj. No.: G85502.01 **Date Sampled:** 9/17/24

DIRECT SHEAR TEST REPORT
Moore Twining Associates, Inc.
Fresno, CA

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	P_c (ksf)	C_c	C_s	Swell Press. (ksf)	Swell %	e_o
Sat.	Moist.											
84.4 %	8.4 %	130.8			2.65		5.50	0.05	0.01	2.13	0.1	0.265

MATERIAL DESCRIPTION	USCS	AASHTO
Lean clay	CL	

Project No. G85502.01 **Client:** PM Design

Project: Proposed Commercial Development

Source: **Sample No.:** B-1 **Elev./Depth:** 2-3.5'

Moore Twining Associates, Inc.

Fresno, CA

Remarks:

Figure

MOORE TWINING ASSOCIATES, INC.

EXPANSION INDEX TEST, ASTM D4829

MTA PROJECT NAME:	Proposed Commercial Development	REPORT DATE:	10/2/2024
		TEST DATE:	9/24/2024
MTA PROJECT NO.:	G85502.01		
SAMPLE I.D.:	B-2 @ 2-4'		
SAMPLED BY:	AH		
SAMPLE DATE:	9/17/2024	TESTED BY:	CJ
MATERIALS DESCRIPTION:	Lean clay		
% PASSING # 4 SIEVE	100		

Initial Moisture Determination:		Final Moisture Determination:	
Pan + Wet Soil Wt., gm	250.0	Wet Soil Wt., lbs	0.9945
Pan + Dry Soil Wt., gm	231.2	Dry Soil Wt., lbs	0.8516
Pan Wt., gm	0.0		
Initial % Moisture Content	8.1	Final % Moisture Content	16.8

Initial Expansion Data:		**Final Expansion Data:**	
Ring + Sample Wt., lbs	0.9209	Ring + Sample Wt., lbs	0.9945
Ring Wt., lbs	0.0000	Ring Wt., lbs	0.0000
Remolded Wt., lbs	0.9209	Remolded Wt., lbs	0.9945
Remolded Wet Density, pcf	126.6	Remolded Wet Density, pcf	134.7
Remolded Dry Density, pcf	117.1	Remolded Dry Density, pcf	115.4

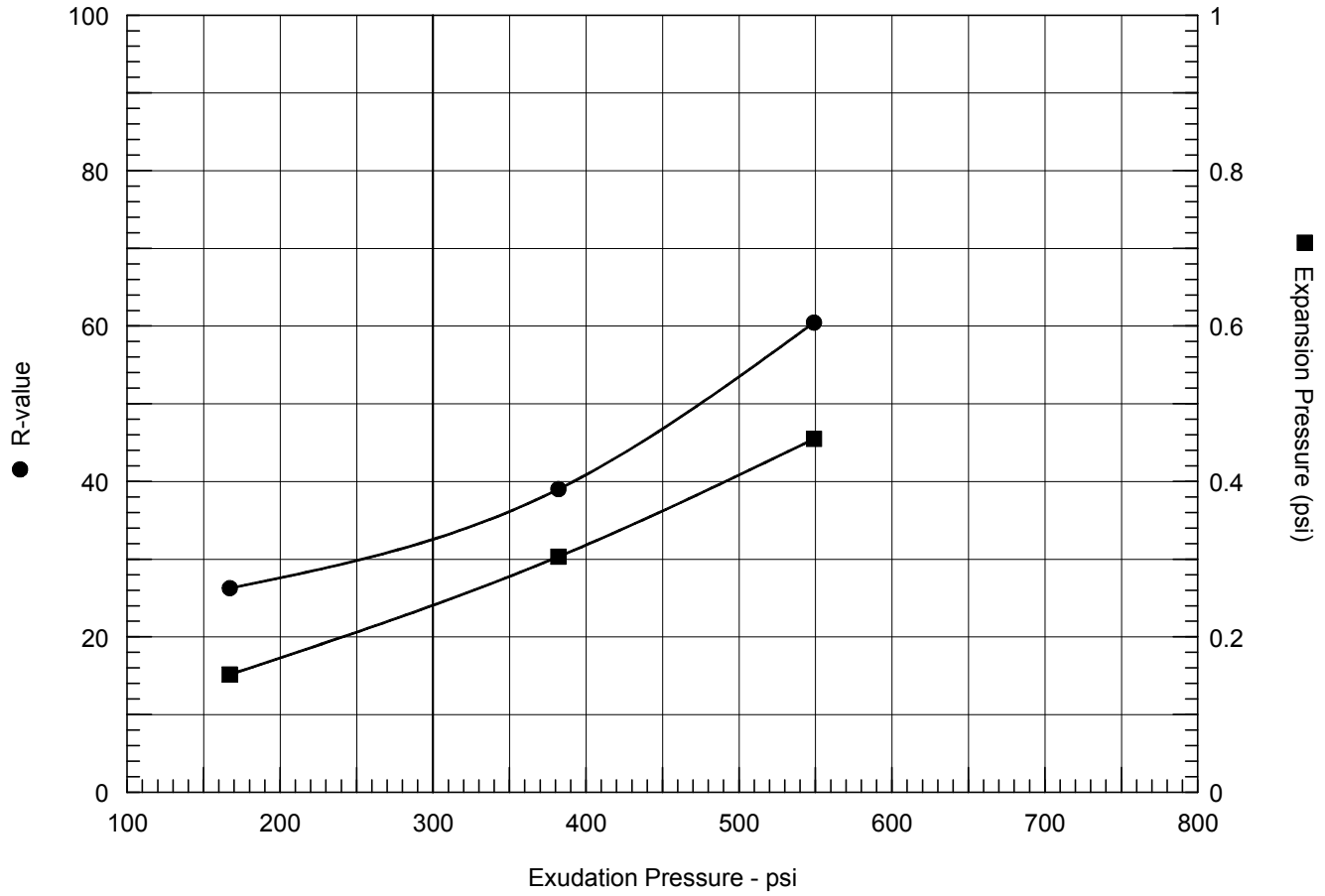
Expansion Data:		Initial Volume	Final Volume
		0.00727222	0.007382
Initial Gage Reading, in:	0.0409		
Final Gage Reading, in:	0.0560		
Expansion, in:	0.0151		
Expansion Index	15	**Comments:**	**Very Low Expansion Potential**

Classification of Expansive Soils. (Table No.1 From ASTM D4829)

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High

PH: 559.268.7021
FX: 559.268.7126
2527 Fresno Street
Fresno, CA 93721

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D 2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	100	126.8	12.0	0.15	100	2.42	167	28	26
2	150	130.5	11.0	0.30	75	2.36	382	43	39
3	200	131.7	10.0	0.45	42	2.32	549	65	60

Test Results	Material Description
R-value at 300 psi exudation pressure = 33 **Exp. pressure at 300 psi exudation pressure =** 0.24 psi	Silty sand

Project No.: G85502.01
Project: Proposed Commercial Development
Sample Number: B-4 **Depth:** 0-3.5'
Date: 10/2/2024

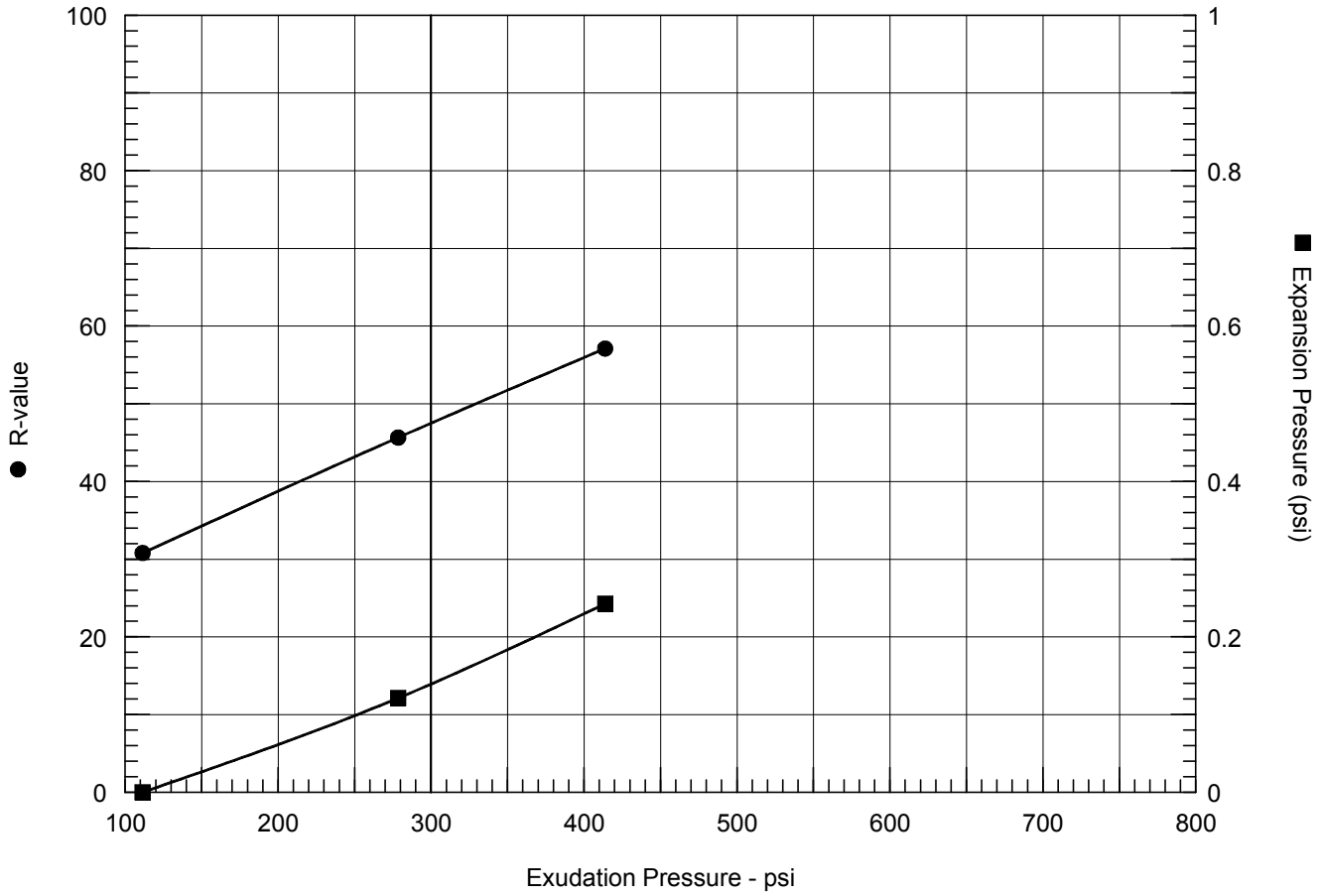
Tested by: CG
Checked by: MS
Remarks:

R-VALUE TEST REPORT

Moore Twining Associates, Inc.

Figure N/A

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D 2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	100	126.0	12.6	0.00	94	2.43	111	32	31
2	150	129.1	11.7	0.12	65	2.37	279	49	46
3	200	132.0	10.7	0.24	44	2.32	414	61	57

Test Results	Material Description
R-value at 300 psi exudation pressure = 47 **Exp. pressure at 300 psi exudation pressure =** 0.14 psi	Silty sand

Project No.: G85502.01
Project: Proposed Commercial Development
Sample Number: B-5 **Depth:** 0-2'
Date: 10/2/2024

Tested by: CG
Checked by: MS
Remarks:

R-VALUE TEST REPORT

Moore Twining Associates, Inc.

Figure N/A

MOORE TWINING ASSOCIATES, INC.

Project Name:	Proposed Commercial Development	Report Date:	10/2/2024
		Sample Date:	9/17/2024
Project Number:	G85502.01		
		Sampled By:	AH
Subject:	Minimum Resistivity, ASTM G187	Tested By:	RS
Material Description:	Silty sand	Test Date:	9/26/2024
Location:	B-1 @ 0-3'		

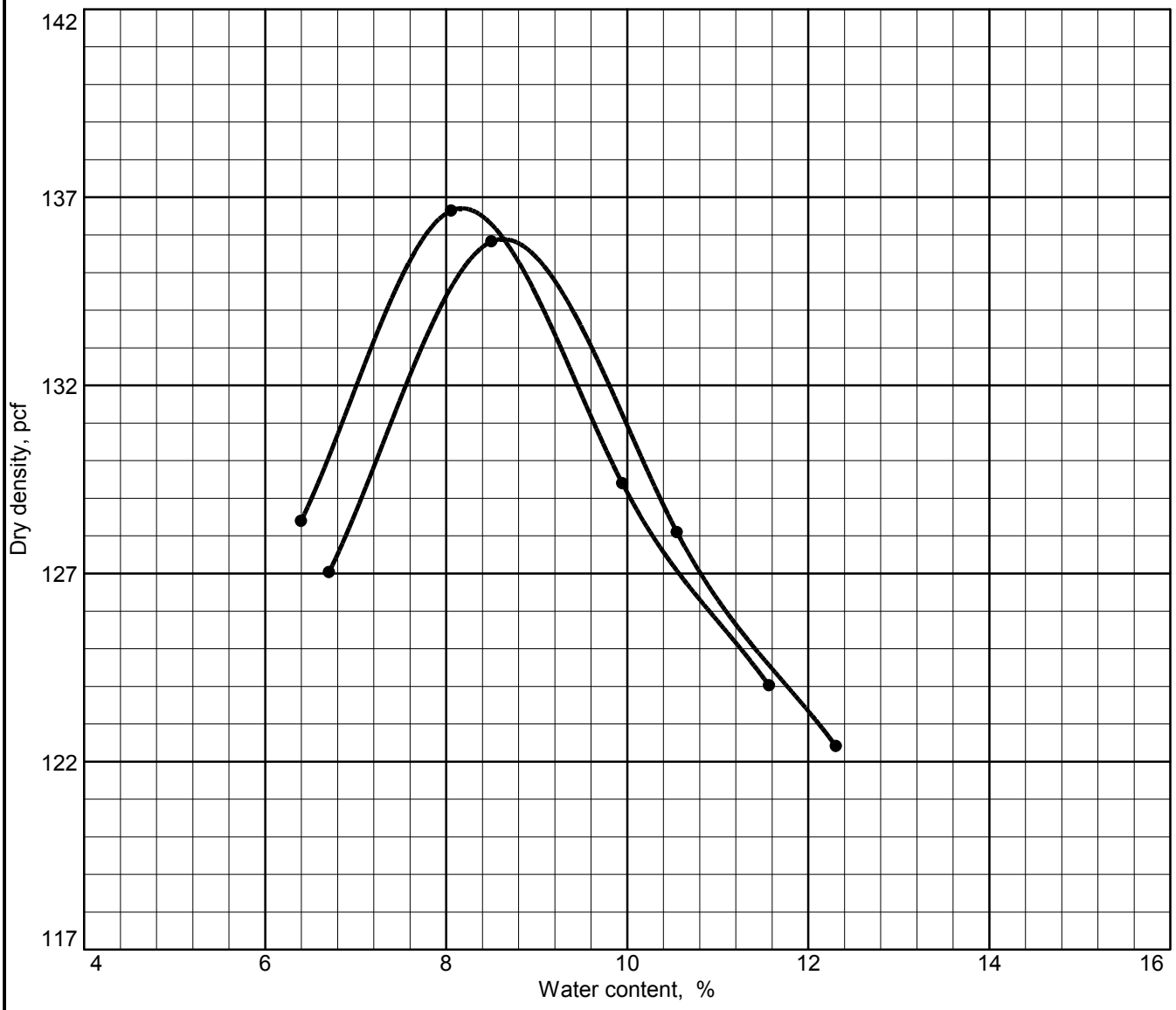
Laboratory Test Results, Minimum Resistivity - ASTM G187

Total Water Added, mls	Resistivity, Ohm-cm
50 mls	6,100
75 mls	4,700
100 mls	4,600
125 mls	4,800

Remarks: Min. Resistivity is 4,600 Ohm-cm

PH: 559.268.7021
FX: 559.268.7126
2527 Fresno Street
Fresno, CA 93721

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method B Modified
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
0-3'	SM						7.7	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 136.7 pcf	135.9 pcf	Silty sand
Optimum moisture = 8.2 %	8.6 %	

Project No. G85502.01 **Client:** PM Design
Project: Proposed Commercial Development

● **Source:** **Sample No.:** B-1 **Elev./Depth:** 0-3'

Moore Twining Associates, Inc.
Fresno, CA

Remarks:

Figure

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

October 03, 2024

Work Order #: **KI19015**

Shaun Reich
MTA Geotechnical Division
2527 Fresno Street
Fresno, CA 93721

RE: Proposed Commercial Development

Enclosed are the analytical results for samples received by our laboratory on **09/19/24** . For your reference, these analyses have been assigned laboratory work order number **KI19015**.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.



Lauren Cox
Client Services Representative

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Geotechnical Division	**Project:** Proposed Commercial Development	**Reported:**
2527 Fresno Street	**Project Number:** G85502.01	10/03/2024
Fresno CA, 93721	**Project Manager:** Shaun Reich	

Analytical Report for the Following Samples

Sample ID	Notes	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 @ 0-3		KI19015-01	Soil	09/17/24 00:00	09/19/24 12:33

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MOORE TWINING ASSOCIATES, INC.
California ELAP Certificate #1371

2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

MTA Geotechnical Division	**Project:** Proposed Commercial Development	**Reported:**
2527 Fresno Street	**Project Number:** G85502.01	10/03/2024
Fresno CA, 93721	**Project Manager:** Shaun Reich	

B-1 @ 0-3

KI19015-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Method	Flag
Inorganics								
Chloride	ND	0.00060	% by Weight	[CALC]	10/02/24	10/02/24	[CALC]	
Chloride	ND	6.0	mg/kg	B4J0114	10/01/24	10/02/24	Cal Test 422	
pH	**8.3**	0.10	pH Units	B4J0114	10/01/24	10/03/24	Cal Test 643 M	
Sulfate as SO4	**0.0079**	0.00060	% by Weight	[CALC]	10/02/24	10/02/24	[CALC]	
Sulfate as SO4	**79**	6.0	mg/kg	B4J0114	10/01/24	10/02/24	Cal Test 417	

Notes and Definitions

PREP	Modified preparation by pulverizing sample to pass #40 sieve and soaked for a minimum of 12 hours using a minimum dilution ratio of 1:10
ND	Analyte NOT DETECTED at or above the reporting limit
mg/kg	milligrams per kilogram (parts per million concentration units)

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

MOORE TWINING ASSOCIATES, INC.

ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

CHAIN OF CUSTODY / ANALYSIS REQUEST

2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #: K 19615
PAGE 01 **OF** 01

REPORT TO:
ATTENTION: S. REICH
COMPANY NAME: GEOTECHNICAL DIVISION
ADDRESS:
PHONE:
EMAIL / FAX:

☐ **INVOICE TO:**
ATTENTION:
COMPANY NAME:
ADDRESS:
PHONE:
EMAIL / FAX:

☐ **REPORT COPY TO:**

REPORTING:
☒ STANDARD FORMAT ☐ PDF
☐ EDT (SWRCB) ☐ EXCEL
☐ GEOTRACKER/COELT (LUFT)
GLOBAL ID:
☐ COUNTY ENVIRONMENTAL HEALTH:
☐ STATE WATER RESOURCES CONTROL BOARD:
☐ OTHER:

SAMPLE INFORMATION
SAMPLED BY (PRINT): ALLEN HARKER
SIGNATURE:
☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☒ OTHER ☐ REPLACEMENT

TURN AROUND TIME
☒ STANDARD
☐ RUSH, DUE ON: 10 DAY

SAMPLE TYPES
SOLID:
BS - BIOSOLID
CR - CERAMIC
SL - SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
ST - STORM WATER
WW- WASTEWATER

PROJECT INFORMATION
CONTRACT / P.O. NO.:
PROJECT: PROPOSED COMMERCIAL DEVELOPMENT
PROJECT NUMBER: G85502.01
PROJECT MANAGER: S. REICH

ANALYSIS REQUESTED

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLES(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

CLIENT SAMPLE ID	DATE	TIME	TYPE	PH	Sulfate	Chloride								STATION CODE
B-1@0-3	9/17/24		SL	X	X	X								

COMMENTS / ADDITIONAL INSTRUCTIONS:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
REGGIE STERLING II		9/19/24	1233		

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in MTA's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody and agrees to MTA's terms and conditions for laboratory services unless contractually bound otherwise. MTA's current terms and conditions can be obtained by contacting our accounting department at (559) 268-7021.

Sample Integrity — Page 2 of 2 — Moore Twining Associates — WO# KI1901.5 — MTA Bottles: Yes or No

COCInfo

Was temperature within range? Chemistry ≤6°C Micro <10°C Temp_____°C	Yes No N/A	Did all bottle labels agree with COC?	Yes No N/A
If samples were taken today, is there evidence that chilling has begun? Recvd____C°	Yes No N/A	Was a sufficient amount of sample received?	Yes No N/A
Did all bottles arrive unbroken and intact?	Yes No N/A	Were correct containers and preservatives received for the tests requested?	Yes No N/A
Do samples have a hold time <72 hours?	Yes No N/A		

Bottles Received	125ml (A) 250ml (B) 1Liter (C) 40ml VOA (V)																		
	Bacti $Na_2S_2O_3$																		
	None (P)																		
	None (AG)																		
	None (CG) 500ml																		
	Cr6 Buffer (P) Borate Carbonate Buffer																		
	Dissolved Oxygen 300ml (P)																		
	HNO_3 (P)																		
	HCl (AG)																		
	H_2SO_4 (P)																		
	H_3PO_4 (AG)																		
	NaOH (P)																		
	NaOH + ZnAc (P)																		
	$Na_2S_2O_3$ (AG) Thio																		
	$Na_2S_2O_3$ (CG) Thio																		
	$Na_2S_2O_3$ 250ml (Brown P) 549																		
	Thio/K Citrate																		
	NH_4Cl (AG) 552																		
	Other:																		
	Client Own																		
	Low Level Hg/Metals Double Bag																		
	Plastic Bag																		
	Glass Jar: 125 / 250 / 500																		
	Soil Tube: Brass / Steel / Plastic																		
	5g Encore																		
	1G Cubitaner																		

Were there bubbles in VOA vials? (Volatiles Only) Yes No N/A

Was PM notified of discrepancies? Yes No N/A

PM:

By/Time:

Comments

Filter or Split		Container	Preservative	Date/Time/Initials
	S P F			
	S P F			
	S P F			
	S P F			
	S P F			

Labeled by: ____ @_____ Labels checked by: ____ @_____

Page 5 of 5

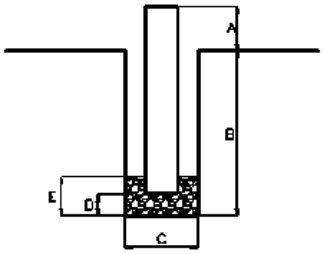
FL-SC-0003-07

APPENDIX D

RESULTS OF PERCOLATION TESTS

PERCOLATION TEST
No. P-1

Project:	Proposed Commercial Development; SE Basin	**Project No.**	G85502.01
Location:	25775 Sherman Road, Perris, California	**Test Date:**	9/17/2024
Coordinates:	33.746277, -117.180677		



A. Top of Pipe Above Ground	35.5	Inches
B. Depth of Hole	63	Inches
C. Diameter of Hole	8	Inches
D. Depth of Gravel Below Pipe	2	Inches
E. Total Gravel Layer Thickness	42	Inches
F. Pipe Length	96.5	Inches
G. Pipe Diameter	2	Inches

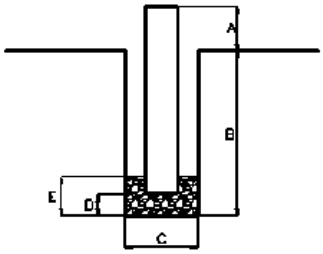
Per Riverside Co. guidelines:
Pre-saturated: 5 gallons to 42.36" from bottom on 9/17/24 at 2:15 PM
Checked 16.92 inches from bottom on 9/18/24 at 7:28 AM
Thus, test failed as infiltration was considered infeasible
Gravel Correction Factor: 2.6

Trial	Date	Time	Depth To Water* (feet)	Time Interval (min)	Water Drop (inches)	Unfactored Percolation Rate, (minutes per inch)	Unfactored Infiltration Rate, (Inches per hour)
1	9/17/2024	14:15:00	4.51				
	9/18/2024	7:28:00	6.63	1033.00	25.44	103.9	0
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

* Depth to water measured from top of pipe

PERCOLATION TEST
No. P-2

Project:	Proposed Commercial Development; SE Basin	**Project No.**	G85502.01
Location:	25775 Sherman Road, Perris, California	**Test Date:**	9/17/2024
Coordinates:	34.746059, -117.180678		



A. Top of Pipe Above Ground	32.5	Inches
B. Depth of Hole	90.5	Inches
C. Diameter of Hole	8	Inches
D. Depth of Gravel Below Pipe	1.75	Inches
E. Total Gravel Layer Thickness	40.5	Inches
F. Pipe Length	121.25	Inches
G. Pipe Diameter	2	Inches

Per Riverside Co. guidelines:
Pre-saturated: 5 gallons to 24.36" from bottom on 9/17/24 at 1:43 PM
Checked 10.56 inches from bottom on 9/18/24 at 7:24 AM
Thus, test failed as infiltration was considered infeasible
Gravel Correction Factor: 2.6

Trial	Date	Time	Depth To Water* (feet)	Time Interval (min)	Water Drop (inches)	Unfactored Percolation Rate, (minutes per inch)	Unfactored Infiltration Rate, (Inches per hour)
1	9/17/2024	13:43:00	8.05				
	9/18/2024	7:24:00	9.22	1059.00	14.04	193.1	0
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

* Depth to water measured from top of pipe

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PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT

ASSESSOR'S PARCEL NUMBERS 329-240-028 AND -031

25775 Sherman Road
City of Perris, Riverside County, California

For Submittal to:

Development Services Department, Planning Division
City of Perris
135 North D Street
Perris, CA 92570

Prepared for:

MIG, Inc.
1650 Spruce Street, Suite 106
Riverside, CA 92507

Prepared by:

Deirdre Encarnación, Paleontologist/Report Writer
Ron Schmidtling, Principal Paleontologist
CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

December 5, 2024

CRM TECH Contract No. 4167P
Approximately 5.5 acres
USGS Romoland, Calif., 7.5' (1:24,000) quadrangle
Section 10, T5S R3W, San Bernardino Baseline and Meridian

EXECUTIVE SUMMARY

Between August and December 2024, at the request of MIG, Inc., CRM TECH performed a paleontological resource assessment on approximately 5.5 acres of vacant land in the City of Perris, Riverside County, California. The subject property of the study, Assessor's Parcel Numbers 329-240-028 and -031, is located at 25775 Sherman Road, on the west side of Sherman Road and near its intersection with Harrison Avenue. The location lies in the southwest quarter of Section 10, Township 5 South, Range 3 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey Romoland, California, 7.5' quadrangle.

The study is part of the environmental review process for the Green Bee Contractor's Yard Project, which proposes to construct a 25,028-square-foot office building and a 43,470-square-foot lumber yard with shade structures, parking spaces, and a detention basin. The City of Perris, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH initiated a records search at the appropriate repository, conducted a literature review, and carried out a systematic field survey of the project area. The results of these research procedures indicate that the proposed project's potential to impact significant, nonrenewable paleontological resources is low in the previously disturbed surface and near-surface soils but high in the subsurface deposits of Pleistocene-age alluvial sediments. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on such resources or reduce them to a level less than significant.

As the primary component of the mitigation program, all earth-moving operations impacting relatively undisturbed soils in the project area beyond the depth of three feet should be monitored periodically by a qualified paleontological monitor to identify potentially fossil-bearing sediments when they are encountered, at which time continuous monitoring will become necessary. Samples of sediment should be collected and processed to recover small fossils, and all fossil remains should be identified and curated at a repository with permanent retrievable storage. Under these conditions, CRM TECH further recommends that the project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
INTRODUCTION 1
PALEONTOLOGICAL RESOURCES 4
Definition 4
Significance Criteria 4
Paleontological Sensitivity 5
SETTING 6
METHODS AND PROCEDURES 7
Records Search 7
Literature Review 7
Field Survey 7
RESULTS AND FINDINGS 8
Records Search 8
Literature Review 8
Field Survey 10
DISCUSSION 10
CONCLUSION AND RECOMMENDATIONS 10
REFERENCES 11
APPENDIX 1: Personnel Qualifications 13
APPENDIX 2: Records Search Results 15

LIST OF FIGURES

Figure 1. Project vicinity 1
Figure 2. Project location 2
Figure 3. Recent satellite image of the project area. 3
Figure 4. Overview of the current natural setting of the project area 7
Figure 5. Geologic map of the project vicinity 9

INTRODUCTION

Between August and December 2024, at the request of MIG, Inc., CRM TECH performed a paleontological resource assessment on approximately 5.5 acres of vacant land in the City of Perris, Riverside County, California (Fig. 1). The subject property of the study, Assessor's Parcel Numbers 329-240-028 and -031, is located at 25775 Sherman Road, on the west side of Sherman Road and near its intersection with Harrison Avenue. The location lies in the southwest quarter of Section 10, Township 5 South, Range 3 West, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey (USGS) Romoland, California, 7.5' quadrangle (Figs. 2, 3).

The study is part of the environmental review process for the Green Bee Contractor's Yard Project, which proposes to construct a 25,028-square-foot office building and a 43,470-square-foot lumber yard with shade structures, parking spaces, and a detention basin. The City of Perris, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000 et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH initiated a records search at the appropriate repository, conducted a literature review, and carried out a systematic field survey of the project area. The following report is a complete account of the methods, results, and conclusion of this study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

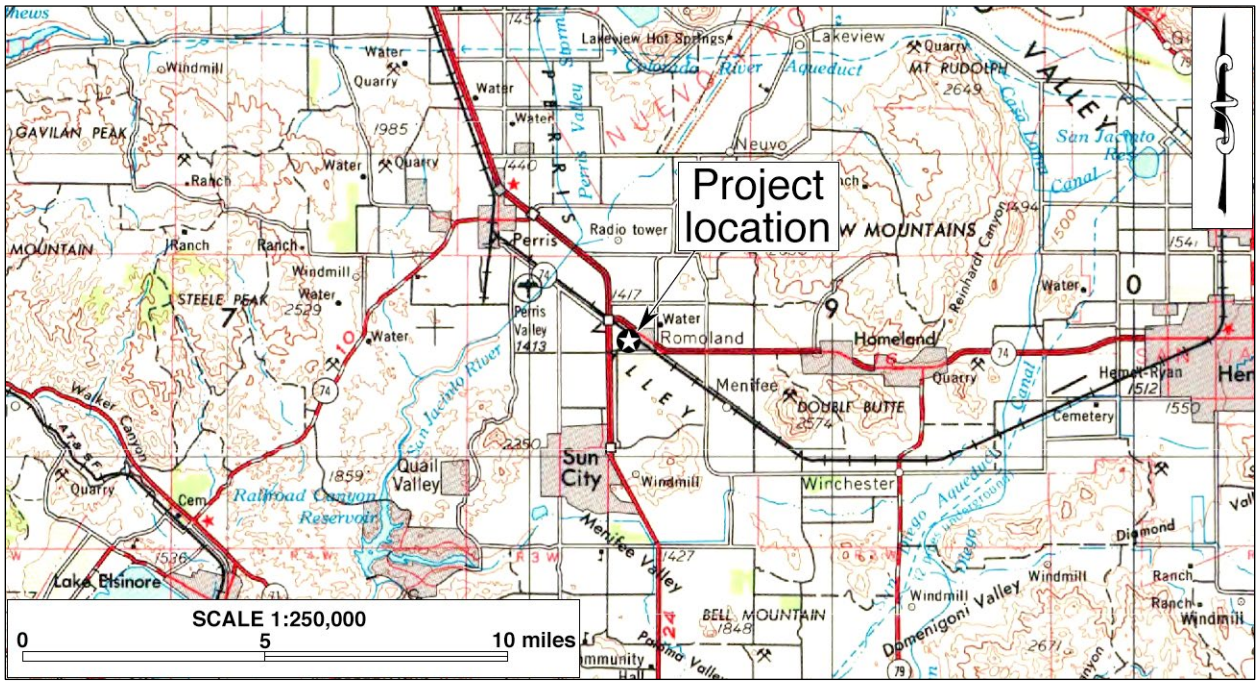


Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 120'x60' quadrangle, 1979 edition)

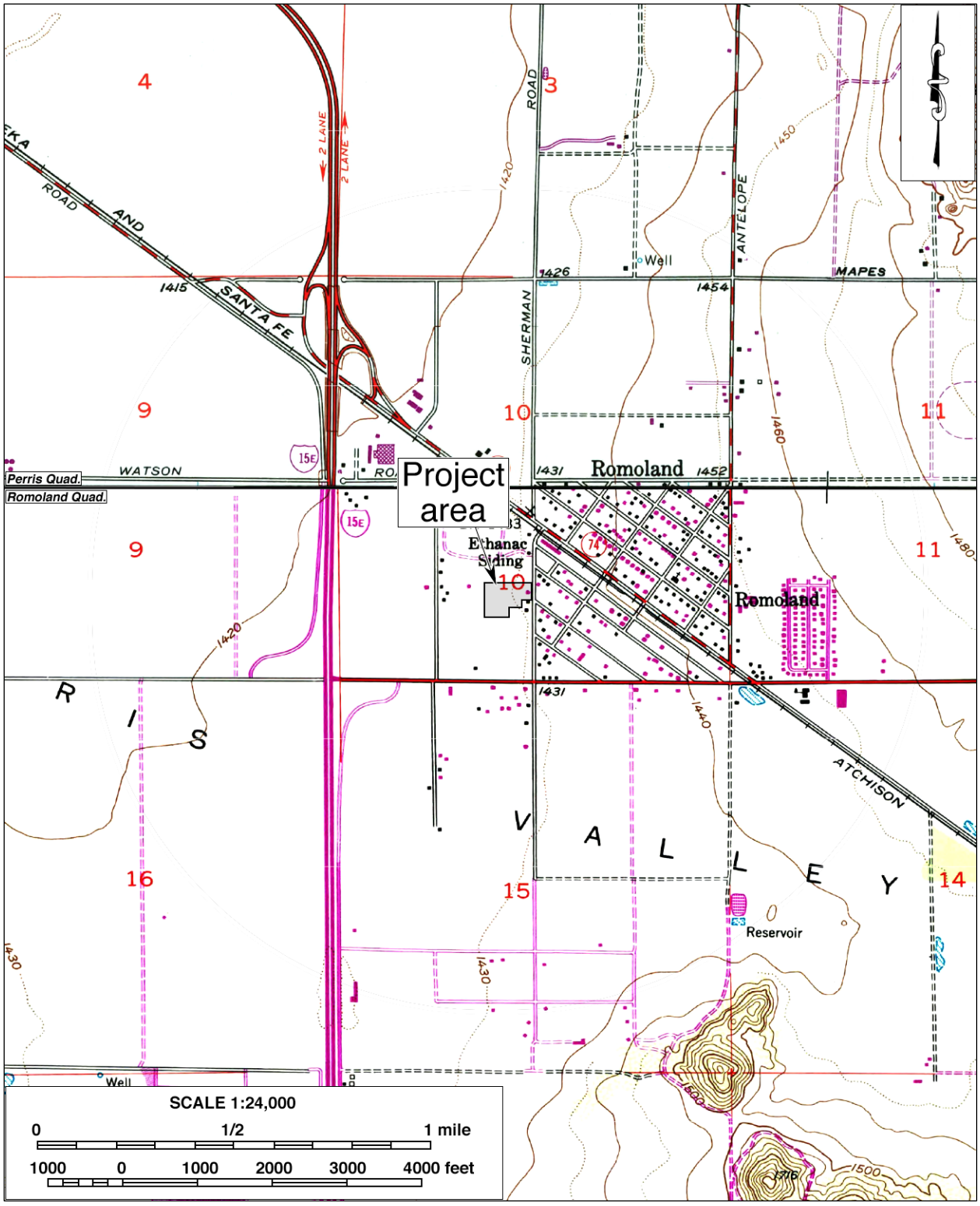


Figure 2. Project location. (Based on USGS Perris and Romoland, Calif., 7.5' quadrangles, 1979 edition)



Figure 3. Recent satellite image of the project area.

PALEONTOLOGICAL RESOURCES

DEFINITION

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the localities where fossils were collected as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, typically older than recorded human history and/or older than the middle Holocene Epoch, which dates to circa 5,000 radiocarbon years (Society of Vertebrate Paleontology 2010:11).

Common fossil remains include marine and freshwater mollusk shells; the bones and teeth of fish, amphibians, reptiles, and mammals; leaf imprint assemblages; and petrified wood. Fossil traces, another type of paleontological resource, include internal and external molds (impressions) and casts created by these organisms. These items can serve as important guides to the age of the rocks and sediments in which they are contained, and may prove useful in determining the temporal relationships between rock deposits from one area and those from another as well as the timing of geologic events. They can also provide information regarding evolutionary relationships, development trends, and environmental conditions.

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

SIGNIFICANCE CRITERIA

According to guidelines proposed by Scott and Springer (2003:6), paleontological resources can be considered to be of significant scientific interest if they meet one or more of the following criteria:

1. The fossils provide information on the evolutionary relationships and developmental trends exhibited among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or the interactions between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; and/or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

PALEONTOLOGICAL SENSITIVITY

The fossil record is unpredictable, and the preservation of organic remains is rare, requiring a particular sequence of events involving physical and biological factors. Skeletal tissue with a high percentage of mineral matter is the most readily preserved within the fossil record; soft tissues not intimately connected with the skeletal parts, however, are the least likely to be preserved (Raup and Stanley 1978). For this reason, the fossil record contains a biased selection not only of the types of organisms preserved but also of certain parts of the organisms themselves. As a consequence, paleontologists are unable to know with certainty, the quantity of fossils or the quality of their preservation that might be present within any given geologic unit.

Sedimentary units that are paleontologically sensitive are those geologic units (mappable rock formations) with a high potential to contain significant nonrenewable paleontological resources. More specifically, these are geologic units within which vertebrate fossils or significant invertebrate fossils have been determined by previous studies to be present or are likely to be present. These units include, but are not limited to, sedimentary formations that contain significant paleontological resources anywhere within their geographical extent as well as sedimentary rock units temporally or lithologically amenable to the preservation of fossils.

A geologic formation is defined as a stratigraphic unit identified by its lithic characteristics (e.g., grain size, texture, color, and mineral content) and stratigraphic position. There is a direct relationship between fossils and the geologic formations within which they are enclosed and, with sufficient knowledge of the geology and stratigraphy of a particular area, it is possible for paleontologists to reasonably determine the formation's potential to contain significant nonrenewable vertebrate, invertebrate, marine, or plant fossil remains.

The paleontological sensitivity for a geologic formation is determined by the potential for that formation to produce significant nonrenewable fossils. This determination is based on what fossil resources the particular geologic formation has produced in the past at other nearby locations. Determinations of paleontologic sensitivity must consider not only the potential to yield a large collection of fossil remains but also the potential to yield a few fossils that can provide new and significant taxonomic, phylogenetic, and/or stratigraphic data.

The Society of Vertebrate Paleontology issued a set of standard guidelines intended to assist paleontologists to assess and mitigate any adverse effects/impacts to nonrenewable paleontological resources. The guidelines defined four categories of paleontological sensitivity for geologic units that might be impacted by a proposed project, as listed below (Society of Vertebrate Paleontology 2010:1-2):

- **High Potential**: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- **Undetermined Potential**: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment.
- **Low Potential**: Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances.
- **No Potential**: Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

SETTING

The City of Perris is situated in the Perris Valley, a semi-arid inland alluvial valley in western Riverside County that extends generally in a northwest-southeast direction. A number of isolated granitic mountains, such as the Lakeview Mountains and the Bernasconi Hills, separate the Perris Valley from the nearby Moreno, San Jacinto, and Menifee Valleys. These valleys are sub-basins of the San Jacinto watershed, one of the three major geographical subdivisions of the Santa Ana Basin. This valley complex is bounded on the northeast by the San Jacinto Mountains and on the southwest by the Santa Ana Mountains. The climate and environment of the region are typical of southern California's inland valleys, with temperatures reaching over 100 degrees Fahrenheit in summer and dipping to near freezing in winter. The average annual precipitation is approximately 12 inches, most of which occurs between December and March.

Geologically, the Perris Valley lies in the northern portion of the Peninsular Ranges geomorphic province, close to the boundary with the adjacent Transverse Ranges province (Jenkins 1980:40-41; Harms 1996:131). The Peninsular Ranges province is made up of a series of northwest-southeast trending structural blocks consisting of uplifted mountains that are separated by valley basins developed along the intervening fault zones. The mountains are made up mainly of igneous intrusive rocks, metasedimentary rocks, and some metavolcanic rocks (Harden 2004:466-468). The non-crystalline rocks in the eastern portion of the mountains contain mainly metasedimentary rocks of Paleozoic and older age, while the crystalline basement rocks consist mainly of Mesozoic-age granitic rocks with some scattered gabbroic intrusions (*ibid*.:466-468, 471-472).

The Perris Valley is a part of the Perris Block, one of the structural blocks in the Peninsular Ranges province. Situated between the San Jacinto and Elsinore-Chino fault zones, the Perris Block includes many tectonically controlled valley-and-ridge systems (English 1926). It is bounded on the north by the Cucamonga (San Gabriel) Fault and on the south by a vaguely delineated boundary near the southern end of the Temecula Valley (*ibid.*). This structural block has been active since Pliocene time (Woodford et al. 1971:3421). Colluvial/alluvial sediments of varying thickness derived from the erosion of the elevated portions of the region cover the low-lying areas of the block, which are filled with nonmarine sediments of upper Pliocene through Recent ages (Mann 1955:Plate 1; Kennedy 1977:5), and the ridges are composed of plutonic igneous rocks, metasedimentary rocks, and late-stage intrusive dikes.

The project area lies on the southeastern edge of the Perris city limits and adjacent to the small community of Romoland, which is now a part of the neighboring City of Menifee. The surrounding area has undergone some commercial, industrial, and residential development in recent decades but still remains largely rural in character. The irregularly-shaped project area is bounded by Sherman Road to the east, a grease processing company on the north, a small residential neighborhood on the west, and a residence and two businesses on the south, interspersed with parcels of vacant land (Fig. 3). The terrain in the project area is relatively level, and the elevations range roughly around 1,435 feet above mean sea level. The surface soil has been completely disturbed, and most of the property is currently covered with dilapidated asphalt. The sparse vegetation remaining on site includes jimsonweed, tumbleweed, and ruderal grasses (Fig. 4).



Figure 4. Overview of the current natural setting of the project area. (Photograph taken on October 2, 2024; view to the southwest)

METHODS AND PROCEDURES

RECORDS SEARCH

The records search service for this study was provided by the Western Science Center (WSC) in Hemet. California, which is one of the local institutions that maintain files on regional paleontological localities as well as supporting maps and documents. The focus of the records search was to identify any known paleontological localities and previously performed paleontological resource studies within a one-mile radius of the project area. A copy of the records search results is attached to this report in Appendix 2.

LITERATURE REVIEW

In conjunction with the records search, CRM TECH report writer Deirdre Encarnación reviewed geological literature under the direction of principal paleontologist Ron Schmidtling. Sources consulted during the review include primarily topographic, geologic, and soil maps of the Perris area, published geologic literature pertaining to the project location, preliminary paleontological sensitivity assessment by the general plans of the County of Riverside and the City of Perris, aerial and satellite images available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software, and other materials in the CRM TECH library, including unpublished reports produced during similar surveys in the vicinity.

FIELD SURVEY

On October 2, 2024, CRM TECH paleontological surveyor Salvadore Boites carried out the field survey of the project area under Ron Schmidtling's direction. The survey was completed on foot at

an intensive level by walking a series of parallel north-south transects at 15-meter (approximately 50-foot) intervals. In this way, the ground surface in the entire project area was systematically examined to determine soil types, verify the geological formations, and search for indications of paleontological remains. Visibility of the native ground surface was generally poor since most of the property was covered with asphalt. In light of the extent of prior disturbances to the ground surface, however, the visibility was not considered a major hindrance to the survey effort.

RESULTS AND FINDINGS

RECORDS SEARCH

The records search by the WSC identified no known paleontological localities within the project area or a one-mile radius (Stoneburg 2024; see App. 2). According to the WSC, the surface soils in the project area consist of old alluvial fan deposits from the late to middle Pleistocene Epoch (*ibid.*). These Pleistocene units are considered to have a high paleontological sensitivity. Based on this sensitivity, the WSC considers any fossil remains recovered from the project vicinity to be scientifically significant (*ibid.*). Therefore, the WSC concludes that excavations associated with the proposed project would impact paleontologically sensitive soils and recommends a paleontological resource mitigation program in order to monitor, salvage, and curate any fossil materials that might be recovered (*ibid.*).

LITERATURE REVIEW

The surface geology in the project area was mapped by Rogers (1965) as *Qal*, or alluvium of Holocene age. This is the same material mapped as the surface material in the Domenigoni Valley, the site of important vertebrate paleontological finds in recent decades (Springer and Scott 1994:47A; Springer et al. 1998:79A; Springer et al. 1999:77A). Most of these fossil remains were recovered from depths greater than 10 feet below the surface, unearthed because of the deep excavation required for a major reservoir construction, much deeper than normally required for typical residential and commercial development projects except in such cases as utility installation.

More recently, Morton (2003a) mapped the surface geology throughout the project area as Qof_a (Fig. 5), defined as old alluvial fan deposits of late to middle Pleistocene age. Morton (2003a) describes this sediment type as "reddish brown, gravel and sand alluvial fan deposits; indurated, commonly slightly dissected. In places includes thin alluvial fan deposits of Holocene age." The subscript refers to the arenaceous nature of the sediments, namely sand or sand bearing (very coarse sand through very fine sand) (*ibid.*).

The County of Riverside's paleontological sensitivity map classifies the project location as high sensitivity ("High B"; RCIT n.d.):

> High B is a sensitivity equivalent to High A, but is based on the occurrence of fossils at a specified depth below the surface. This category indicates fossils that are likely to be encountered at or below 4 feet of depth and may be impacted during construction activities. (County of Riverside 2015:4.9-11).

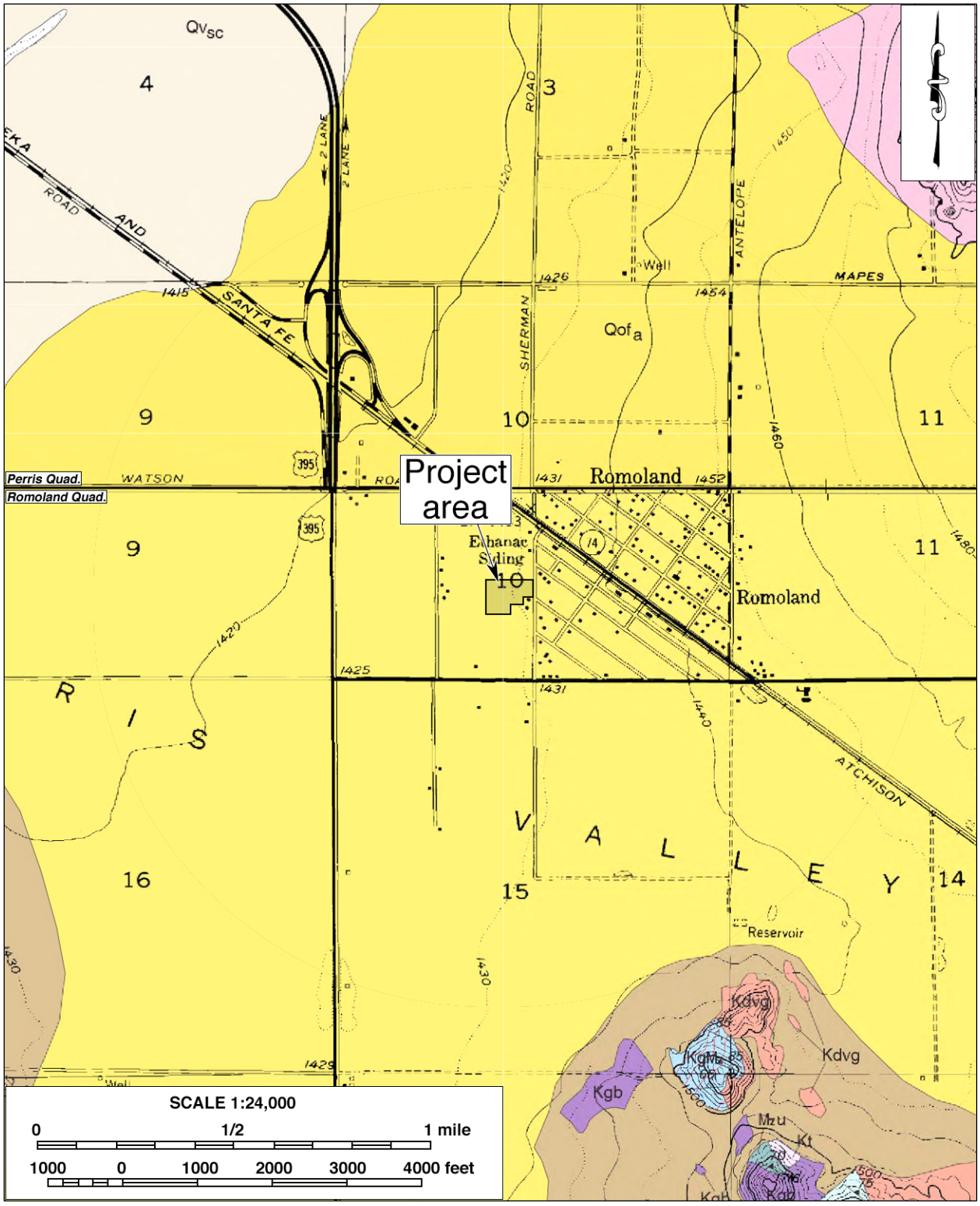


Figure 5. Geologic map of the project vicinity. (Source: Morton 2003a; 2003b)

The City of Perris General Plan identifies the project area as a part of Area No. 2, which is defined as Pleistocene older fan deposits and considered to be high in sensitivity for paleontological resources (City of Perris 2008:Exhibit CN-7).

Aerial and satellite images of the vicinity show the project area to be undeveloped and largely unused in the 1960s (NETR Online 1966; 1967), with agricultural pursuits in the region on the decline by that time. A lone building, likely a residence, was noted in the northeast corner of the project area in 1978 but was removed sometime before 1985 (NETR Online 1978; 1985). Around 2009, the entire property was cleared, graded, and put into use for parking and storage (NETR Online 2009; Google Earth 2009). The most recent business identified in association with this location was a salvage yard known as Tweaker RV, but that operation evidently ceased in 2020-2021 (NETR Online 2009-2022; Google Earth 2009-2024).

FIELD SURVEY

Throughout the course of the field survey, no surface manifestation of any paleontological remains was observed within the project area. Field observations confirmed that the surface soils in the project area had been extensively disturbed in the past, as evidenced by the level terrain and the presence of asphalt covering much of the ground. Given the extent of the past disturbance, no intact fossil remains were anticipated on the surface or in shallow deposits.

DISCUSSION

The results of the records search and the literature review indicate that the project area is located on Pleistocene-age alluvium, possibly with a layer of Holocene sediments overlying the older formation. The Pleistocene alluvium is generally recognized to have a high potential to contain significant, nonrenewable fossil remains. Elsewhere in Riverside County, these sediments have yielded significant fossil finds. Based on the presence of Pleistocene sediments at unknown depth, the County of Riverside categorizes the area in the “High B” category of paleontological sensitivity. Earth-moving operations the penetrate the extensively disturbed surface and near-surface soils, therefore, may potentially encountered paleontological resources.

CONCLUSION AND RECOMMENDATIONS

CEQA guidelines (Title 14 CCR App. G, Sec. V(c)) require that public agencies in the State of California determine whether a proposed project would “directly or indirectly destroy a unique paleontological resource” during the environmental review process. The present study, conducted in compliance with this provision, is designed to identify any significant, non-renewable paleontological resources that may exist within or adjacent to the project area, and to assess the possibility for such resources to be encountered in future excavation and construction activities.

Based on the research results presented above, the proposed project’s potential to impact significant, nonrenewable paleontological resources appears to be low in the previously disturbed surface and near-surface soils but high in the subsurface deposits of Pleistocene-age alluvial sediments.

Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on such resources or reduce them to a level less than significant. The mitigation program should be formulated in accordance with the provisions of CEQA (Scott and Springer 2003) as well as the proposed guidelines of the Society of Vertebrate Paleontology (2010), and should include but not be limited to the following components:

- All earth-moving operations within the project area reaching beyond the depth of three feet below the current ground surface should be monitored periodically by a qualified paleontological monitor to identify potentially fossil-bearing sediments when they are encountered, at which time continuous monitoring will become necessary. The monitor should be prepared to quickly salvage fossils as they are unearthed to avoid construction delays and should collect samples of sediments that are likely to contain fossil remains of small vertebrates or in vertebrates. However, the monitor must have the power to temporarily halt or divert grading equipment to allow for the removal of abundant or large specimens.
- Samples of sediment should be collected and processed to recover small fossils, and all fossil remains should be identified and curated at a repository with permanent retrievable storage.
- A report of findings, including an itemized inventory of recovered specimens, should be prepared upon completion of the procedures outlined above. The report should include a discussion of the significance of the paleontological findings, if any. The report and the inventory, when submitted to the City of Perris, would signify completion of the program to mitigate potential impacts on paleontological resources.

Under these conditions, CRM TECH further recommends that the proposed project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

REFERENCES

City of Perris
2008 City of Perris General Plan, Conservation Element. https://www.cityofperris.org/departments/development-services/general-plan.

County of Riverside
2015 County of Riverside General Plan. https://planning.rctlma.org/ZoningInformation/GeneralPlan.aspx.

English, W.A.
1926 *Geology and Oil Resources of the Puente Hills Region, Southern California*. U.S. Geological Survey Bulletin 146. Washington, D.C.

Google Earth
1996-2024 Aerial photographs of the project vicinity; taken in 1996, 2002, 2003, 2005, 2006, 2009, 2011-2014, 2016, and 2018-2024. Available through the Google Earth software.

Harden, Deborah R.
2004 *California Geology*. Prentice Hall, Upper Saddle River, New Jersey.

Harms, Nancy S.
1996 *A Precollegiate Teachers Guide to California Geomorphic/Physiographic Provinces*. National Association of Geoscience Teachers, Far West Section, Concord, California.

Jenkins, Olaf P.
1980 Geomorphic Provinces Map of California. *California Geology* 32(2):40-41.

Kennedy, Michael P.
1977 *Recency and Character of Faulting along the Elsinore Fault Zone in Southern Riverside County, California*. California Division of Mines and Geology Special Report 131. Sacramento.
Mann, John F., Jr.
1955 *Geology of a Portion of the Elsinore Fault Zone, California*. California Division of Mines Special Report 43. San Francisco.
Morton, Douglas M.
2003a Geologic Map of the Romoland 7.5' Quadrangle, Riverside County, California. U.S. Geological Survey Open-file Report 03-102. Washington, D.C.
2003b Preliminary Geologic Map of the Perris 7.5' Quadrangle, Riverside County, California. U.S. Geological Survey Open-file Report 03-270. Washington, D.C.
NETR (Nationwide Environmental Title Research) Online
1966-2022 Aerial photographs of the project vicinity; taken in 1966, 1967, 1978, 1985, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2022. http://www.historicaerials.com.
Raup, David M., and Steven M. Stanley
1978 *Principle of Paleontology*. W.H. Freeman and Company, San Francisco.
RCIT (Riverside County Information Technology)
n.d. Map My County. https://gis1.countyofriverside.us/Html5Viewer/index.html?viewer=MMC_Public.
Rogers, Thomas H.
1965 Geological Map of California, Santa Ana Sheet (1:250,000). California Division of Mines and Geology, Sacramento.
Scott, Eric, and Kathleen Springer
2003 CEQA and Fossil Preservation in California. *Environmental Monitor* Fall:4-10. Association of Environmental Professionals, Sacramento, California.
Society of Vertebrate Paleontology
2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. http://vertpaleo.org/Membership/Member-Resources/SVP_Impact_Mitigation_Guidelines.aspx.
Springer, Kathleen B., and Eric Scott
1994 First Record of Late Pleistocene Vertebrates from the Domenigoni Valley, Riverside County, California. *Journal of Vertebrate Paleontology* 14(3):47A.
Springer, Kathleen B., Eric Scott, Lyndon K. Murray, and W.G. Spaulding
1998 Partial Skeleton of a Large Individual of *Mammut americanum* from the Domenigoni Valley, California. *Journal of Vertebrate Paleontology* 18(3):78-A.
Springer, Kathleen B., Eric Scott, J. Christopher Sagebiel, and Kimberly Scott
1999 A Late Pleistocene Lake-Edge Vertebrate Assemblage from the Diamond Valley, Riverside County, California. *Journal of Vertebrate Paleontology* 19(3):77-A.
Stoneburg, Brittney Elizabeth
2024 Letter of findings, paleontological resources records search for the proposed project. Prepared by Western Science Center, Hemet, California. (See App. 2)
Woodford, Alfred O., John S. Shelton, Donald O. Doehring, and Richard K. Morton
1971 Pliocene-Pleistocene History of the Perris Block, Southern California. *Geological Society of America Bulletin* 82(12):3421-3448.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

PROJECT PALEONTOLOGIST
Ron Schmidtling, M.S.

Education

1995	M.S., Geology, University of California, Los Angeles.
1991	Pasadena City College, Pasadena, California.
1985	B.A., Archaeology, Paleontology, Ancient Folklore, and Art History, University of Southern Mississippi, Hattiesburg.

Professional Experience:

2020-	Project Paleontologist, CRM TECH, Colton, California.
2014-	Instructor of Earth Science, History of Life, Ecology, and Evolutionary Biology, Columbia College Hollywood, Reseda, California.
2013, 2015	Volunteer, excavation of a camarasaur and a diplodocid in southern Utah, Natural History Museum of Los Angeles County, California.
1993-2014	Consultant, Getty Conservation Institute, Brentwood, California. • Geological Consultant on the Renaissance Bronze Project, characterizing constituents of bronze core material; • Paleontological Consultant for Antiquities/Conservation, identifying the foraminifera and mineral constituents of a limestone torso of Aphrodite; • Scientific Consultant on the Brentwood Site Building Project, testing building materials for their suitability in the museum galleries.
1999-2001	Archaeological and Paleontological Monitor, Michael Brandman Associates, Irvine, California.
1997	Department of Archaeology, University of California, Los Angeles.
1994	Scientific Illustrator and Teaching Assistant, Department of Earth and Space Sciences and Department of Biological Sciences, University of California, Los Angeles.

Memberships

AAPS (Association of Applied Paleontological Sciences), USA; CSEOL (Center for the Study of Evolution and the Origin of Life), Department of Earth Sciences, University of California, Los Angeles.

Publications and Reports

Author, co-author, and contributor on numerous paleontological publications and paleontological resource management reports.

REPORT WRITER
Deirdre Encarnación, M.A.

Education

2003	M.A., Anthropology, San Diego State University, California.
2000	B.A., Anthropology, minor in Biology, with honors; San Diego State University, California.

Professional Experience

2004-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2001-2003	Part-time Lecturer, San Diego State University, California.
2001	Research Assistant for Dr. Lynn Gamble, San Diego State University.
2001	Archaeological Collection Catalog, SDSU Foundation.

PALEONTOLOGICAL SURVEYOR
Salvadore Z. Boites, M.A.

Education

2013	M.A., Applied Anthropology, California State University, Long Beach.
2003	B.A., Anthropology/Sociology, University of California, Riverside.
1996-1998	Archaeological Field School, Fullerton Community College, Fullerton, California.

Professional Experience

2014-	Project Archaeologist, CRM TECH, Colton, California.
2010-2011	Adjunct Instructor, Anthropology, Everest College, Anaheim, California.
2003-2008	Project Archaeologist, CRM TECH, Riverside/Colton, California.
2001-2002	Teaching Assistant, Moreno Elementary School, Moreno Valley, California.
1999-2003	Research Assistant, Anthropology Department, University of California, Riverside.

APPENDIX 2

RECORDS SEARCH RESULTS

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CONVERSE CONSULTANTS

Phase I Environmental Site Assessment Report

25775 Sherman Road
Perris, California

Converse Project No. 24-16-137-01
October 1, 2024

Prepared For:

MIG
1650 Spruce Street, Suite 106
Riverside, California 92507

Prepared By:

Converse Consultants
8333 Foothill Boulevard, Suite 133
Rancho Cucamonga, California 91730

Converse Consultants
Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

October 1, 2024

Mr. Bob Prasse
Director of Environmental Services
MIG
1650 Spruce Street, Suite 106
Riverside, California 92507

Subject: **PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT**
25775 Sherman Road
Perris, California
APNs 329-240-031 and 329-240-028
Converse Project No. 24-16-137-01

Mr. Prasse:

Converse Consultants (Converse) is pleased to submit the attached report that summarizes the activities and the results of a Phase I Environmental Site Assessment (Phase I ESA) that was conducted at the referenced property (Subject Property).

A summary of the assessment is presented in the Executive Summary, as well as in Sections 8.0 and 9.0 of the report.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact Laura Tanaka at (626) 930-1261 or Norman Eke at (626) 930-1260.

CONVERSE CONSULTANTS

Theresa Duncan

Laura Tanaka
Principal Enviromental Scientist

Dist.: 1/Addressee via Electronic Mail (PDF Format)

Table of Contents

Page

EXECUTIVE SUMMARY 1
1.0 INTRODUCTION 2
1.1 Purpose and Scope of Services 2
1.2 Non-Scope Considerations 2
1.3 Significant Assumptions 3
1.4 Limitations and Exceptions 3
1.5 Special Terms and Conditions 3
1.6 Reliance 3
1.7 Continued Viability 4
2.0 SUBJECT PROPERTY DESCRIPTION 5
2.1 Current Use(s) of the Subject Property 5
2.2 Location and Legal Description 5
2.3 Zoning Information 5
2.4 Subject Property Characteristics 5
2.5 Description of Subject Property Structure(s) 6
3.0 USER PROVIDED INFORMATION & RESPONSIBILITIES 7
3.1 Requested Documents and Information 7
3.2 User Provided Information 7
3.2.1 Environmental Cleanup Liens 8
3.2.2 Activity and Use Limitations 8
3.2.3 Specialized Knowledge or Experience 8
3.2.4 Reason for Significantly Lower Purchase Price 8
3.2.5 Commonly Known or Reasonably Ascertainable Information 8
3.2.6 Obviousness of Contamination 8
3.3 Continuing Obligations 9
4.0 OWNER PROVIDED INFORMATION 10
5.0 RECORDS REVIEW 11
5.1 Physical Setting 11
5.2 Historical Review 11
5.2.1 Aerial Photograph and Map Review 11
5.2.2 Building Permit Review 13

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5.2.3 City Directories 13
City Directories Listing by Address 14
5.2.4 Data Failure 14
5.2.5 Summary of Historical Property Use 14
5.2.6 Summary of Past Uses of Adjoining Properties 15
5.2.7 Summary of Past Uses of the Surrounding Area 15
5.3 Results of Environmental Records Sources Review 15
5.3.1 Subject Property Listings 15
5.3.2 Adjoining Properties 15
Database Report Site Summary – Adjoining/Surrounding Properties 16
5.3.3 Other Off-site Locations of Concern 16
5.3.4 Unplottable Listings 16
5.4 Additional Environmental Record Sources 17
6.0 SUBJECT PROPERTY RECONNAISSANCE 19
6.1 Methodology 19
6.2 Limiting Conditions 19
6.3 Interior Observations of Subject Property 19
6.4 Exterior Observations of Subject Property 19
6.5 Current Uses of Adjoining Properties 20
6.6 Current Uses of Surrounding Area 21
7.0 INTERVIEWS 22
7.1 Subject Property Owner 22
7.2 Tenant/Occupant 22
7.3 State or Local Government Officials 22
7.4 Owners and Occupants of Neighboring Sites 22
8.0 FINDINGS & OPINIONS 23
9.0 CONCLUSIONS & RECOMMENDATIONS 24
10.0 DEVIATIONS & LIMITATIONS 25
11.0 ADDITIONAL NON-SCOPE SERVICES 26
12.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL 27
13.0 LIST OF PREPARERS 28
14.0 REFERENCES 29
15.0 LIST OF ACRONYMS 30

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APPENDICES

Appendix A - Application for Authorization to Use
Appendix B - Property Plans
Appendix C - Pertinent Property Photographs
Appendix D - Historical Information
Appendix E - Database Report
Appendix F - Pertinent Regulatory Records

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EXECUTIVE SUMMARY

The following is an Executive Summary of the Phase I Environmental Site Assessment (Phase I ESA) that was conducted by Converse Consultants (Converse). Please refer to the appropriate sections of the report for a complete discussion of these issues. In the event of a conflict between this Executive Summary and the report, or an omission in the Executive Summary, the report shall prevail.

This report presents the results of the Converse Phase I ESA performed at 25775 Sherman Road in the City of Perris, Riverside County, California, referred to as the Subject Property in this report. Converse was retained by MIG to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical within the scope of an ESA, Recognized Environmental Conditions (RECs) in connection with the Subject Property.

Converse has compiled and reviewed information that was obtained from interviews, document research, and on-site and area reconnaissance to identify potential environmental conditions at the Subject Property, in conformance with the ASTM Standard E: 1527-21 Environmental Site Assessment Standard Practice (ASTM Standard: E1527-21). This Phase I ESA was conducted during the period of August 28, 2024 to October 1, 2024.

The Subject Property consists of two (2) contiguous parcels that are being used as a construction parking area for GreenBee Service since around 2011.

Historically, the Subject Property appeared as agricultural land from as early as 1938 to at least the 1970s, when there was a mobile home on the northeastern corner of the Subject Property. The Subject Property then appeared as vacant land from approximately the mid-1980s until at least 2010. From as early as 2005 to at least 2011, the Subject Property was owned by Cemex Construction Materials (Cemex) and was used as a construction yard for concrete materials. Cemex then went out of business in 2011, and the Subject Property was used as a construction parking area. There are currently no structures present on the Subject Property.

The Subject Property was not identified in the regulatory database report. However, the north adjacent property was listed in the regulatory database report as the following:

- J N Grease, 25685 Sherman Road (ERIS Map Key No. 3). This site is located north of and contiguous with the Subject Property and was identified on the RCRA-NONGEN database. This listing appears to have a low potential for environmental concern to the Subject Property.

No recognized environmental conditions, controlled recognized environmental conditions, historical recognized environmental conditions, or significant data gaps in connection with the Subject Propert were identified during this assessment.

Based on this assessment, no further assessment appears warranted at this time.

Business Environmental Risks (BERs) or non-scope items are discussed in Section 11.0 of the report.

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

This report presents the results of the Converse Consultants (Converse) Phase I Environmental Site Assessment (ESA) performed at 25775 Sherman Road in the City of Perris, Riverside County, California, referred to as the Subject Property in this report. Converse was retained by MIG to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical, Recognized Environmental Conditions (RECs) in connection with the Subject Property. The term Recognized Environmental Conditions is defined in Section 1.1.1 of the American Society of Testing and Materials (ASTM) Standard Practice as *(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the 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*.

This Phase I ESA was completed in accordance with our proposal dated July 19, 2024. Our work consisted of the following and was completed in general conformance with the scope and limitations of the ASTM Practice E1527-21 and complies with standards and practices set forth in 40 Code of Federal Regulations (CFR) Part 312 for AAI.

- Interviews with the Subject Property owner representatives
- Subject Property and vicinity reconnaissance
- Review of regulatory agency records
- Description of physical setting
- Historical review
- Interviews with public agency personnel
- Preparation of this report

1.2 Non-Scope Considerations

There are a number of non-scope issues which are sometimes assessed concurrently with a Phase I ESA. Unless specifically agreed in the contract proposal documents, these non-scope considerations are not included as part of the Phase I assessment. Examples of non-scope issues include:

- Asbestos-containing Building Materials
- Biological Agents
- Cultural & Historic Resources
- Diffuse Anthropogenic Pollution
- Ecological Resources
- Emerging Chemicals/Contaminates
- Endangered Species
- Health & Safety

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- Indoor Air Quality
- Industrial Hygiene
- Lead-base Paint
- Lead in Drinking Water
- Mold
- Non-liquid Polychlorinated Biphenyls
- Polyfluoroalkyl Substances
- Radon
- Regulatory Compliance
- Wetlands

No Non-Scope issues were addressed in this report.

1.3 Significant Assumptions

No assumptions were made for this assessment that need to be noted as significant.

1.4 Limitations and Exceptions

There were no limitations or exceptions during this assessment.

1.5 Special Terms and Conditions

No special terms or conditions were identified by the User.

1.6 Reliance

This report is for the sole benefit and exclusive use of MIG in accordance with the terms and conditions attached to our proposal under which these services have been provided. Its preparation has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. The Scope of Services associated with the report was designed solely in accordance with the objectives, schedule, budget, and risk-management preferences of MIG.

This report should not be regarded as a guarantee that no further contamination, beyond that which could be detected within the scope of this assessment, is present at the Subject Property. Converse makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Subject Property. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation of the Subject Property at the time of the assessment. Also, events may occur after the Subject Property visit, which may result in contamination of the Subject Property. Additional information, which was not found or available to Converse at

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the time of report preparation, may result in a modification of the conclusions and recommendations presented.

Any reliance on this report by Third Parties shall be at the Third Party's sole risk. Should MIG wish to identify any additional relying parties not previously identified, a completed Application of Authorization to Use (see Appendix A of this report) must be submitted to Converse Consultants.

1.7 Continued Viability

This report has continued viability of 180 days from the following:

Table 1 – Viability Dates

Action	Date
Interviews	September 23, 2024
Review of Government Records	September 17, 2024
Visual Inspection	September 19, 2024
Declaration by Environmental Professional (EP)	October 1, 2024
Lien Search	Not applicable

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2.0 SUBJECT PROPERTY DESCRIPTION

2.1 Current Use(s) of the Subject Property

The Subject Property is owned by PSLQ, Inc. dba GreenBee Service, and is currently used as a construction parking area. The Subject Property is currently covered in gravel. There are no structures on the Subject Property.

A Subject Property location map and a field generated Subject Property plan are provided in Appendix B. Pertinent Subject Property photographs are provided in Appendix C.

2.2 Location and Legal Description

The Subject Property is located at 25775 Sherman Road, in the City Perris in Riverside County, California. The Subject Property is located on the west side of Sherman Road, between State Route 74 (CA 74) and Ethanac Avenue. The Subject Property is located approximately 1/8-mile south of CA-74 and 1/3-mile east of Interstate 215 (Escondido Freeway).

The Subject Property consists of two (2) parcels that cover approximately 5.49 acres. The Riverside County Assessor's Parcel Numbers (APNs) for the Subject Property are 329-240-031 and -028. The legal description of the Subject Property is described as the following:

PARCEL MAP 329-24 POR. SW 10 T.5S., R.3W. PARCELS 31 AND 28 4.49 ACRES IN POR LOT 739 MB 014/063 ROMOLA FARMS 6A for the former parcel number and 1.00 ACRES IN POR LOT 738 MB 014/063 ROMOLA FARMS 6A

2.3 Zoning Information

According to the City of Perris Planning Department, the zoning for the Subject Property is LI, which is defined as light industrial.

2.4 Subject Property Characteristics

The Subject Property consists of two parcels: an irregular-shaped parcel (APN 329-240-031), which is the northern portion of the lot; and a rectangular-shaped parcel (APN 329-240-028), which is the smaller southern portion of the lot. The combined acreage of the two parcels is 5.49 acres. The Subject Property is generally level and the majority of the Subject Property is covered with a gravel base. The Subject Property is currently a vacant lot.

The Subject Property fronts onto Sherman Road on the east. The Subject Property is in a mixed-use area consisting of residential, commercial, and vacant lots.

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2.5 Description of Subject Property Structure(s)

There are no significant structures on the Subject Property. Converse did observe the following onsite:

- Electrical box north of the entrance.
- A portable toilet along the southern boundary.
- Chain-link fencing along the perimeter of the Subject Property.
- A van, one mid-sized truck, and two semi-trucks with a flat bed trailer along the southern boundary.

No services were noted on the Subject Property at the time of the reconnaissance. The following services were present in the general area of the Subject Property at the time of the assessment.

- Electricity: Southern California Edison
- Gas: The Gas Company
- Potable Water: Eastern Municipal Water District
- Sanitary Sewer: Eastern Municipal Water District
- Heating, Ventilation, Air Conditioning (HVAC):No applicable
- Solid Waste: CR & C Waste Service-Perris

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3.0 USER PROVIDED INFORMATION & RESPONSIBILITIES

3.1 Requested Documents and Information

The ASTM E1527-21 specifies that the User provide any helpful documents that may be available. Converse requested that the User, MIG, provide the following documents and information.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Safety Data Sheets; Community Right to Know Plans; or Safety, Preparedness and prevention Plans; Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the subject Property or surrounding area
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the Subject Property or relating to environmental liens encumbering the Subject Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded Activity Use Limitations (AULs)
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

However, MIG did not provide any of this information.

3.2 User Provided Information

Section 6 of ASTM E1527-21 outlines specific User's responsibilities. This information will help identify the possibility of RECs in connection with the Subject Property. The ASTM Standard provides a questionnaire to help the User to comply with the statutory requirements to perform tasks which would help identify RECs. Converse included the questionnaire as Attachment A to our proposal. In general, any Users should make Converse aware of information they have regarding the following:

- Environmental Cleanup Liens filed or recorded against the Subject Property
- Activity and land use limitations that are in place on the Subject Property or have been filed or recorded in a registry.

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- Specialized knowledge or experience of the person seeking to qualify for the Legal Liability Protections (LLP)
- Relationship of the purchase price to fair market value of the Subject Property if it were not contaminated
- Commonly known or reasonably ascertainable information about the Subject Property
- The degree or obviousness of the presence or likely presence of contamination at the Subject Property, and the ability to detect this contamination by appropriate investigation.

The following information was requested from the User(s) MIG:

3.2.1 Environmental Cleanup Liens

The User provided no information regarding environmental cleanup liens or title records.

3.2.2 Activity and Use Limitations

The User did not have any information indicating they were aware of any AULs.

3.2.3 Specialized Knowledge or Experience

The User did not provide any information indicating they had specialized knowledge or experience related to the Property or nearby property.

3.2.4 Reason for Significantly Lower Purchase Price

Converse has no information regarding the purchase price of the Subject Property or comparable properties. The User has not indicated to Converse that there is any conclusion that there was a lower purchase price because of known or suspected contamination at the Subject Property.

3.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide any information about: past uses; specific chemicals at the Subject Property; past spills; environmental cleanup or other reasonably ascertainable information regarding the Subject Property.

3.2.6 Obviousness of Contamination

The User did not provide any information based on their knowledge or experience that would be obvious indicators of contamination on the Subject Property.

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Unless specifically stated otherwise in the Scope of Services, the purpose of this Phase I ESA was to qualify for the landowner liability protections to CERCLA Liability as described in ASTM E1527-21.

Business risk unrelated to the CERCLA innocent landowners defense are only assessed as specifically agreed in the Scope of Services and discussed in Section 11.0, Additional Non-Scope Services, of this report.

3.3 Continuing Obligations

In order to assert a LLP, the User must satisfy a number of statutory requirements that are generally referred to as Continuing Obligations, which are outside the Scope of Services of the Phase I ESA. Examples of Continuing Obligations include providing legally required notices, stopping continuing releases and complying with land use restrictions. Failure to comply with these and other statutory post-acquisition requirements will jeopardize liability protection.

It is the responsibility of the User to comply with the Continuing Obligations requirements of ASTM E1527-21 and AAI. Anyone seeking LLP protections should take independent action beyond this Phase I ESA to perfect their position.

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4.0 OWNER PROVIDED INFORMATION

The ASTM E1527-21 specifies that the Subject Property owner and the Key Site Manager provide any helpful documents that may be available as listed below.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Safety Data Sheets; Community Right to Know Plans; or Safety, Preparedness and Prevention Plans; Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the Subject Property or surrounding area
- Notices or other correspondence form any government agency relating to past or current violations of environmental laws with respect to the Subject Property or relating to environmental liens encumbering the Subject Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded AULs
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

The Subject Property owner representative, Mr. Lee Quigley, Vice President of GreenBee Service, stated that he has no environmental reports or documents regarding the Subject Property.

Mr. Quigley indicated that the past owner was Cemex Construction Materials and that the land was unused to his knowledge. He was not aware of any underground storage tanks (USTs), aboveground storage tanks (ASTs) or clarifiers historically used onsite.

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5.0 RECORDS REVIEW

5.1 Physical Setting

Item	Comments
Physical Setting:	The Subject Property is located approximately 1,432 feet above mean sea level with surface topography gently sloping towards the southwest (United States Geological Survey [USGS] Topographic Map, Romoland, California, 2021)
Geology:	The Subject Property is underlain by older alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, Geologic Map of California, 2015).
Groundwater:	There are no groundwater wells within a one-mile radius of the Subject Property. Based on the State Water Resources Control Board (SWRCB) GeoTracker website, groundwater for the subject area is greater than 45 feet below ground surface (bgs) at a leaking underground storage tank (LUST) facility, United Parcel Service, which is located at 25283 Sherman Road, Romoland, California. The facility is approximately ⅓-mile to the north of the Subject Property. Based on the report, groundwater is expected to flow in a southwestern direction that follows surface topography (Ninyo & Moore, 2005).
Potable Water Supply:	Potable water is supplied by the City of Perris, which purchases approximately 640 million gallons of water each year from the Eastern Municipal Water District (EMWD). According to the City's 2023 Annual Water Quality Report, the water (both tap and bottled water) is currently sourced through rivers, lakes, streams, ponds, reservoirs, springs, and wells in the Hemet and San Jacinto areas.

5.2 Historical Review

5.2.1 Aerial Photograph and Map Review

Available historical aerial photographs and USGS topographic maps, as described in Table 1, provided by Environmental Risk Information Services (ERIS) were reviewed.

Fire Insurance Maps were requested from ERIS. However, according to ERIS, there was no coverage for the Subject Property. A copy of the letter is provided in Appendix D.
A summary of the review is provided in the following tables. Copies of the aerial photographs and maps have been provided in Appendix D.

Aerial Photographs Report

Date	Subject Property	Adjoining Properties	General Vicinity
1938, 1949, 1953	Agricultural	Agricultural and residential.	Agricultural with scattered residential dwellings.
1962, 1966	Agricultural or fallow agricultural.	Agricultural, fallow agricultural and residential.	Increase in residential dwellings. Grading was evident to the northwest: possible sand and gravel pit. A railroad and a highway appear to the north.

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Date	Subject Property	Adjoining Properties	General Vicinity
1976, 1985	Residential-type dwelling in the northeast corner of the Subject Property. The remaining area of the Subject Property appeared to be either agricultural land or fallow agricultural land. By 1985, the agricultural uses were no longer evident.	Agricultural, fallow agricultural and residential.	Surrounding area has remained unchanged since the 1966 photograph with the exception of increased development.
1989 and 1996	No structures evident.	Unchanged from the 1985 photograph.	Surrounding area has remained unchanged since 1985 photograph.
2002 and 2004	Vacant; no structures evident.	By 2002, the north adjacent property appeared to be occupied by a commercial/ light industrial facility (currently J N Grease Services). Residential and vacant lots were also present.	Surrounding area has remained unchanged from the 1996 photograph.
2005 and 2006	Vacant.	Increased development by 2005 to the north. Other adjacent properties have remained unchanged since 2004 photograph	Surrounding area has remained unchanged since 2004 photograph
2009	Vacant.	Commercial buildings to the south along with residential. Other adjacent properties have remained unchanged since the 2006 photograph.	Surrounding area has remained unchanged since the 2006 photograph
2010, 2012, 2014, 2016, 2018, 2020	Rows of equipment occupy the Subject Property.	Adjacent properties have remained unchanged since the 2009 photograph.	Surrounding area has remained unchanged since the 2009 photograph.
2022	Vacant. The rows of equipment are now gone.	Adjacent properties have remained unchanged since the 2009 photograph except increased development at J N Grease Services.	Surrounding area has remained unchanged since the 2009 with the exception of increased development.

Historical Topographic Maps

Date	Subject Property	Adjoining Properties	General Vicinity
1942, 1943	Vacant; No evidence of structures.	Vacant properties.	Residential and vacant lots. A railroad line and CA 74 are indicated to the north. A creek bed is approximately ½-mile to the west.
1953	Vacant; No evidence of structures.	Vacant lots or residential.	The surrounding area is unchanged from the 1943 map except for the appearance of Ethanac Siding to the north and highway 395 to the west.

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Date	Subject Property	Adjoining Properties	General Vicinity
1973	One building is on the northwest corner of the Subject Property.	Unchanged since the 1953 map.	The surrounding area is unchanged from the 1953 map with the exception of increased development to the east and improvements to Interstate 395 to the west.
1979	Unchanged from 1973 photograph.	Unchanged since the 1953 map.	Unchanged from the 1973 map except for the mine to the northwest.
2015, 2018, 2022	Vacant; No evidence of structures.	Unchanged from prior map.	Unchanged. Highway 395 is now Inerstate 215.

5.2.2 Building Permit Review

Converse contacted the City of Perris, Building and Safety Department to reivew existing building permits. However, the City did not have any permits and directed Converse to Riverside County, Department of Building and Safety.

Available building permits from Riverside County were reviewed for the Subject Property address. A chronological summary is provided below.

1973:
In January, a building construction permit to construct a 12 feet by 60 feet mobile home with an 8 feet by 20 feet porch with one step, and a 10 feet by 20 feet cabana (screened) room was issued to Martha Starnes.

In February, a building construction permit to construct a patio and deck for the mobile home was issued to Martha Starnes.

Note: The ERIS City Directory lists Mrs. Starnes as the owner of the 25685 Sherman Road property, which is adjacent to the north of the Subject Property, in 1974.

1988:
In October, a building construction permit for a 7,500 square foot warehouse and a 3,600 square foot display building was issued to Dean Construction. However, according to the permit, it was never built.

5.2.3 City Directories

A city directory search was completed on the Subject Property by ERIS. The complete city directory is provided in Appendix D, Historical Research.

The adjacent properties were identified as either residential or commercial uses in the city directories from 1974 to 2023.

The Subject Property was identified as unknown in city directories published as early as 1977 to 1996.

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Note: The Riverside County building permits identified Mrs. Starnes on two building permits in 1973. The permits were for the construction of a mobile home and a cabana on the Subject Property.

City Directories Listing by Address

Property Address	Listing	Year
25685 SHERMAN RD	STARNES F W MRS	1974
25685 SHERMAN RD	ASHLEY DONNIE	1977
25685 SHERMAN RD	ASHLEY DONNIE	1984
25685 SHERMAN RD	XXXX	1986
25685 SHERMAN RD	XXXX	1991
25685 SHERMAN RD	XXXX	1996
25685 SHERMAN RD	C W COLE FABRICATORS	2008
25685 SHERMAN RD	C W COLE FABRICATORS	2008
25685 SHERMAN RD	J N GREASE SVC	2016
25685 SHERMAN RD	J N GREASE SVC	2020
25685 SHERMAN RD	J N GREASE SVC	2023
25685-25950 SHERMAN RD	NO LISTING FOUND	2003
25775 SHERMAN RD	XXXX	1977
25775 SHERMAN RD	XXXX	1984
25775 SHERMAN RD	XXXX	1986
25775 SHERMAN RD	XXXX	1991
25775 SHERMAN RD	XXXX	1996

5.2.4 Data Failure

Historical information regarding the Subject Property indicated as early as 1938 the Subject Property was occupied by agricultural land. Therefore, a historical data failure occurred during this assessment.

Additional standard ASTM resources are not deemed likely to yield any significant new information. This is not deemed a significant data gap.

5.2.5 Summary of Historical Property Use

As early as 1938 to at least 1973, the Subject Property was agricultural land. By 1973, there was one mobile home on the northeastern portion of the Subject Property. By 1985, the Subject Property was vacant land again until approximately 2010. Since 2010, the Subject Property has been utilized as a parking lot. The Subject Property is currently a vacant lot .

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5.2.6 Summary of Past Uses of Adjoining Properties

The north adjacent property was agricultural land until at least 2002. By 2002, the property appeared to be occupied by multiple commercial structures for J N Grease and has been in its present day layout since 2018.

The adjacent properties appeared to be agricultural and residential land to the south as early as 1938. Beginning in 1949, the adjacent properties to the south were occupied by multiple structures and agricultural land. By 1976, the south adjacent properties appeared to have more buildings. It appears to have been vacant from 1985 to approximately 1996. The present day commercial and residential buildings were completed by 2009.

Since 1938, Sherman Road has been adjacent to the east of the Subject Property, followed by residential lots.

The west adjacent property has been agricultural land since 1938. However, residential dwellings to the northwest appeared as early as 1962.

5.2.7 Summary of Past Uses of the Surrounding Area

The surrounding area was predominantly agricultural property as early as 1938. The railroad line and Highway CA 74 have been present to the north of the Subject Property since as early as 1942. Development in the general area increased in the early-1950s. A sand and gravel pit was evident by 1962 to the northwest but appears to have been unused since 1989.

5.3 Results of Environmental Records Sources Review

An Environmental Risk Information Services (ERIS) report of Standard Environmental Record Sources (Records) was prepared specifically for the Subject Property. The search included queries to the following databases for cases within specified ASTM search distances. A copy of the ERIS Database Report is provided in Appendix E.

5.3.1 Subject Property Listings

The Subject Property was not identified on the databases in the ERIS report.

5.3.2 Adjoining Properties

The following adjoining properties were identified in the ERIS report:

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- J N Grease, 25685 Sherman Road (ERIS Map Key No. 3). This site is located adjacent to the north of the Subject Property and was identified on the following databases:

  RCRA Generators List
  The EPA's RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. This is a database which lists facilities which generate, store, transport, treat, or dispose of hazardous waste. Small quantity facilities generate less than 1,000 kilograms per month of non-acutely hazardous waste. Large quantity facilities generated at least 1,000 kilograms per month of non-acutely hazardous waste or one kilogram per month of acutely hazardous waste.

  This site was identified as a NON-GEN site, meaning it is verified to not be a generator of hazardous waste. This listing appears to have a low potential for environental concern to the Subject Property.

Database Report Site Summary – Adjoining/Surrounding Properties

DB	Site Name	Address	Dir.	Dist. (mi/ft)	Elev. (ft)	Facility Status	Comments
RCRA NON GEN	J.N GREASE	25685 SHERMAN RD MENIFEE CA 92585	N	0.14/733.21	0	EPA Handler ID: CAC003024896	Listing is adjacent to the north of the Subject Property.

5.3.3 Other Off-site Locations of Concern

Other off-site locations of concern identified by ERIS within a maximum one-mile radius from the Property included registered LUST sites, hazardous waste generators, ENVIROSTOR sites, and permitted hazardous materials handlers (a medical waste generator, a soil treatment center, and a mine).

The potential for environmental concern to the Subject Property from these off-site locations appears to be low due to one or more of the following: type of regulatory listing; type of resource (soil) affected, location with respect to the direction of regional groundwater, distance from the Property; status of the case; remedial efforts being directed by a regulatory agency; and/or potential responsible parties have been identified.

5.3.4 Unplottable Listings

The ERIS database report did not identify any unplottable listings.

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5.4 Additional Environmental Record Sources

Information requests pertaining to the Subject Property (25775 Sherman Road and APNs 329-240-031 and 329-240-028) were submitted to the following regulatory agencies.

Table 3 – Additional Environmental Record Sources

Federal Agency	
U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA)	The PHMSA online mapping system for gas transmission pipelines and hazardous liquid pipelines on the Subject Property or adjacent properties was reviewed (https:// pvnpms.phmsa.dot.gov/PublicViewer/). No pipelines were identified on or adjoining the Subject Property.
State Agencies	
California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC)	No information regarding the Subject Property was on file with DTSC. The Envirostor website (https://www.envirostor.dtsc.ca.gov/public/) was reviewed for information, and there was no information for the Subject Property.
Cal/EPA, Riverside Regional Water Quality Control Board (RWQCB)	An information request for the Subject Property was sent to the Colorado River Waterboard. However, at this time they have not responded. The Geotracker website (https://geotracker.waterboards.ca.gov/) was reviewed for information, and the Subject Property was not listed in the database.
California Department of Conservation (DOC), Geologic Energy Management Division (CalGEM)	Converse reviewed the DOC CalGEM Online Well Finder (https:// maps.conservation.ca. gov/doggr/wellfinder/). According to the website, no oil or gas wells are located on or adjoining the Subject Property. The Subject Property is no located within an oil field.
Local Agencies	
South Coast Air Quality Management District (SCAQMD)	Records pertaining to the Subject Property on file with this agency included the following: Permits to Operate: November 2005 - Permit No. R-F74625 A/N 437951 was issued to Cemex Construction Materials for a drive over hopper, three (3) belt conveyors, surge hopper, two (2) weigh hoppers, screw conveyor, three screw conveyors, two screw conveyors, reversing screw conveyor, two holding hoppers, and two loadout stations. November 2005 - Permit No. R-F74626 A/N 437953 was issued for an air pollution control system. November 2005 - Permit No. R-F74627 A/N 437955 was issued for an air pollution control system. November 2005 - Permit No. R-F74628 A/N 437957 was issued for a cement storage silo. November 2005 - Permit No. R-F74627 A/N 437958 was issued for a cement storage silo. Facility Equipment List Report was completed under the following listing. September 2011 - Cemex Construction Materials was listed as “out of business” as of the last inspection date of September 2, 2011. SCAQMD's Facilty Information Database (FINDS) (https://scaqmd-online.maps.arcgis.com/apps/ webappviewer/index.html?id=70dd0045e66243488b3f1ae32405cc0a) was reviewed for information, and the Subject Property was not listed. Copies of the permits are included in an appendix to this report.
County of Riverside Department of Environmental Health	The Riverside County Department of Environmental Health did not have any records for the Subject Property.
Riverside County Fire Department	The Riverside County Fire Department did not have any records for the Subject Property.

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Methane	According to the Methane Map Finder (https://msf.carb.arb.ca.gov/), the Subject Property is not within 300 feet of an oil or gas well, or 1,000 feet of a methane producing site.

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6.0 SUBJECT PROPERTY RECONNAISSANCE

6.1 Methodology

On September 19, 2024 Converse visited the Subject Property to evaluate present use and to identify observable environmental conditions at the Property. Our methodology involved walking the perimeters and center lines, while noting observed evidence of present and potential environmental concerns.

A field-generated map is provided in Appendix B. Pertinent Subject Property photographs are provided in Appendix C.

6.2 Limiting Conditions

Converse's findings are based on the Subject Property conditions observed on Thursday, September 19, 2024.

6.3 Interior Observations of Subject Property

The Subject Property did not have any structures present. Therefore, interior observations were not made.

6.4 Exterior Observations of Subject Property

During our Subject Property visit, Converse made the following observations of the exterior of the property:

Table 6 – Exterior Observations of Subject Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
Hazardous Substances & Petroleum Products:		No	
Storage Tanks & Related Equipment:		No	
Odors:		No	Offsite chemical odors from the north adjacent property.
Standing Surface Water or Other Pools of Liquid:		No	
Drums & Other Containers of Hazardous Substances, Petroleum Products, or Other Unidentified Contents:		No	
Transformers or Equipment containing Polychlorinated Biphenyls (PCBs):		No	Two (2) pole-mounted transformers to the southeast of the Subject Property across Sherman Road.
Pits, Ponds, or Lagoons:		No	

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Item or Condition	Observed Evidence	No Evidence Observed	Comments
Stained Soil or Pavement:	Yes		Surficial stained soil near the entrance and along the southeast boundary where GreenBee Service parks their trucks. The sizes range from 2 x 2 feet to 4 x 4 feet.
Stressed Vegetation (other than from insufficient water):		No	
Evidence of Mounds, Depressions or Filled or Graded Areas Suggesting Trash or Other Solid Waste Disposal:	Yes		The perimeters of the Subject Property had piles of windblown debris such as food wrappers and paper.
Waste Water or any discharge (including storm water) at the Subject Property:		No	
Wells (active, inactive, or abandoned):		No	
Septic Systems or Cesspools:		No	
Prior Structures:		No	
Roads, Tracks, Railroad Tracks or Spurs:		No	
Suspect Asbestos-containing Building Materials released into the environment:		No	
Suspect Lead-based Paint released into the environment:		No	
Suspect PCB Caulk, Paint or Ballasts released into the environment:		No	

In addition to the above items, Converse also made the following observations:

- There were five (5) small excavation/boring areas, two (2) in the southeast corner of the Subject Property and one (1) approximately 30 feet west of the main entrance. Two (2) more locations were observed in the southwest corner of the Subject Property. According to the Subject Property owner, the work was done on September 17, 2024.

6.5 Current Uses of Adjoining Properties

Based on our research and observations during our Subject Property visit, the Subject Property is bordered by the following:

Table 7 – Adjoining Property Use

Direction	Current Development
North:	J N Grease (25685 Sherman Road).
Northeast:	Sherman Road, which is followed by residential dwellings.
Northwest:	Residential property.

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Direction	Current Development
South:	Identified from north to south: residential dwellings, Cass Arrieta North Shop and Office (3060 Sherman Road), and a vacant lot.
Southeast:	Residential dwellings and Sherman Road.
Southwest:	Vacant property.
East:	Identified from north to south: Sherman Road, residential dwellings, and Cass Arrieta North Shop and Office (3060 Sherman Road).
West:	Vacant property followed by residential property.

6.6 Current Uses of Surrounding Area

Based on our research and observations during our Subject Property visit, the surrounding area consists of commercial and residential uses.

Commercial uses include trucking facilities and a grease waste and treatment center.

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7.0 INTERVIEWS

During the interviews, the owners and occupants were asked if they had any available documents that would be helpful. The documents that were requested are detailed in Section 3.1 of this report:

7.1 Subject Property Owner

Mr.Lee Quigley was interviewed regarding his knowledge of past and present uses and/or problems at the Subject Property. The following concerns were addressed during an email interview conducted on September 23, 2024.

M. Quigley indicated that he is the Vice President of GreenBee Service, which currently owns the Subject Property and uses it as a construction parking yard. He stated that Subject Property was previously owned by Cemex and is undeveloped land.

He was not familiar with any previous environmental reports completed at the Subject Property and Mr. Quigley was not aware of any environmental concerns . Mr. Quigley stated that this Phase I ESA is being conducted for the development of a new office building.

Mr. Quigley identified Mr. Danny Alvarez as the Site Contact and Mr. Alvarez was on site during the Subject Property reconnaissance.

7.2 Tenant/Occupant

Mr. Danny Alvarez of GreenBee Service was onsite during Converse's reconnaissance of the Subject Property.

Mr. Alvarez was not aware of past usage of the Subject Property, and therefore did not know if there were any USTs, ASTs, or clarifiers on-site.

7.3 State or Local Government Officials

Other than the information provided in Section 5.4, no other information was provided by a government official.

7.4 Owners and Occupants of Neighboring Sites

No interviews of owners or occupants of neighboring sites were conducted.

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8.0 FINDINGS & OPINIONS

A cursory summary of findings and opinions is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Historically, the Subject Property appeared as agricultural land from as early as 1938 to at least the 1970s, when there was a mobile home on the northeastern corner of the Subject Property. The Subject Property then appeared as vacant land from approximately the mid-1980s until at least 2010. From as early as 2005 to at least 2011, the Subject Property was owned by Cemex Construction Materials (Cemex) and was used as a construction yard for concrete materials. Cemex then went out of business in 2011, and the Subject Property was used as a construction parking area. There are currently no structures present on the Subject Property.

The Subject Property was not identified in the regulatory database report. However, the north adjacent property was listed in the regulatory database report as the following:

- J N Grease, 25685 Sherman Road (ERIS Map Key No. 3). This site is located north of and contiguous with the Subject Property and was identified on the RCRA-NONGEN database. This listing appears to have a low potential for environmental concern to the Subject Property.

Based on the above, the following were not identified:

Recognized Environmental Conditions (RECs): No RECS pertaining to the Subject Property were identified during this assessment.

Controlled Recognized Environmental Conditions (CRECs): No CRECS pertaining to the Subject Property were identified during this assessment.

Historical Recognized Environmental Conditions (HRECs): No HRECS pertaining to the Subject Property were identified during this assessment.

***De Minimis Condition**:* The presence of surficial surface staining from vehicle usage is considered a de minimis condition.

Significant Data Gaps: No significant data gasp affecting the ability of the Environmental Professional to identify a REC were encountered during this assessment.

Per the ASTM Section 12.8, Additional Investigation, to detect the presence of hazardous materials and petroleum products, it is our opinion that no additional investigation is warranted to detect hazardous materials or petroleum products with the context of this Phase I ESA.

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9.0 CONCLUSIONS & RECOMMENDATIONS

Converse has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527-21 for 25775 Sherman Road, Perris, Riverside County, California. Any exceptions to or deletions from this practice are described in the Limitations and Exceptions of Assessment section of this report. This assessment has not revealed any recognized environmental conditions, controlled recognized environmental conditions, and/or significant data gaps in connection with the Subject Property.

Based on this assessment, no further assessment appears warranted at this time.

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10.0 DEVIATIONS & LIMITATIONS

No deviation(s) from the ASTM Standard Practice were encountered during this assessment.

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11.0 ADDITIONAL NON-SCOPE SERVICES

There are environmental issues outside the scope of the ASTM E1527-21 that can be assessed in connection with a commercial real estate transaction. These are dealt with as non-scope considerations since they do not typically present a Superfund Liability. The specific level of inquiry (if any) is defined in the Proposal which contains a Scope of Work. These non-scope services are very client specific and not covered by the ASTM standard. They are frequently related to the business environmental risk, which is defined in the standard as “risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate…”

No non-scope issues were addressed during this assessment.

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12.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history, and setting of the *subject property*. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.



Laura Tanaka
Principal Enviromental Scientist

This Phase I ESA was completed by the above Environmental Professional. A complete list of preparers, and their responsibilities for this assessment, is provided in the following section (Section 13.0, List of Preparers).

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13.0 LIST OF PREPARERS

Laura Tanaka
Principal Environmental Scientist

B.S., Biology, California State Polytechnic University, Pomona, 1987
Cal/OSHA Asbestos Consultant, 11-4708
CDPH Certified Lead Inspector/Assessor, #I-3086
CDPH Certified Project Monitor, #M-3086

Ms. Tanaka is currently responsible for the day-to-day operations of the Costa Mesa office. Ms. Tanaka has 33 years experience with Phase I and II ESAs, Preliminary Endangerment Assessments, asbestos surveys, lead-based paint surveys, abatement monitoring, as well as hazardous material audits, completing business plans, and SCAQMD permitting. Current duties at Converse include project management, business development and client maintenance, conducting/managing ESAs, and completing third party documents reviews.

Principal area of responsibility for this ESA report: Project Management, Client Point of Contact, Historical Research, Regulatory Agency Interaction, Property Reconnaissance, Interviews, Report Generation, and Report Review.

Theresa Duncan
Staff Environmental Scientist

B.S., Geological Sciences, Geographical Information Systems Certificate, California State University, Fullerton, 2021.

Ms. Duncan has 2 years' experience with Phase I and Phase II Environmental Site Assessments (ESAs). Her experience with Phase II ESAs includes the collection of soil, soil vapor, indoor air, and groundwater sampling. Her assessment experience also includes data evaluation and report generation. Her assessments have been performed on a variety of sites which have included: undeveloped & agricultural land; industrial, commercial and residential properties; and school sites in Southern California.

Principal area of responsibility for this ESA report: Project Management, Client Point of Contact, Historical Research, Regulatory Agency Interaction, Subject Property Reconnaissance, Interviews, and Report Generation.

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14.0 REFERENCES

California Department of Conservation, Division of Mines and Geology, Geologic Map of California, 1991.

California Department of Conservation (DOC), Geologic Energy Management Division (CalGEM) Well Finder (https://maps.conservation.ca.gov/doggr/wellfinder/) September 2024.

California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control, Cypress Office, Request for Information, September 2024.

Cal/EPA, Envirostor Website (http://www.envirostor.dtsc.ca.gov/public/), September 2024.

Cal/EPA, Los Angeles Regional Water Quality Control Board, Request for Information, September 2024.

Cal/EPA, Geotracker Website (http://geotracker.waterboards.ca.gov/), September 2024.

Environmental Risk Information Services (ERIS), Historic Aerials, September 2024.

ERIS, City Directory, September 2024.

ERIS Database Report, September 2024.

ERIS Fire Insurance Maps, September 2024.

ERIS Topographic Maps, September 2024.

Riverside, City of, Building and Safety Department, Building Permit Review, December 1999.

Riverside County Environmental Health Department, Request for Information, September 2024

Riverside County Fire Department, Risk Management Plan, Request for Information, September 2024.

South Coast Air Quality Management District, Request for Information, September 2024.

United States Geological Survey, 7.5-Minute Topographic Quadrangle, Romoland, 2022.

United States Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA), Pipeline Location Website (https://www.npms.phmsa.dot.gov/default.htm), September 2024.

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15.0 LIST OF ACRONYMS

The following is a list of acronyms that may have been noted in the report. This is not an all inclusive list and may include acronyms that are not found in your report but are commonly utilized in environmental assessments. Additional acronyms pertaining to regulatory agency documents/listings can be found in the regulatory database report, which is provided as an appendix to this report.

AAI	All Appropriate Inquiries
ACM	Asbestos-containing Material
APN	Assessor's Parcel Number
APCD	Air Pollution Control District
AQMD	Air Quality Management District
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
AUL	Activity Use Limitation
BER	Business Environmental Risk
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
Cal/EPA	California Environmental Protection Agency
CalGEM	(California Department of Conservation), Geologic Energy Management Division
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CREC	Controlled Recognized Environmental Condition Recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).
CUPA	Certified Unified Protection Agencies
de minimis condition	A condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brough to the attention of appropriate governmental agencies. A condition determined to be a de minimis condition is not a REC nor a CREC.
DOC	(California) Department of Conservation
DPW	(Los Angeles County) Department of Public Works
DTSC	Department of Toxic Substances Control
DWP	(City of Los Angeles) Department of Water and Power
EHD	Environmental Health Department
EP	Environmental Professional
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
ERIS	Environmental Risk Information Systems
(x)FD	(City/County)Fire Department
HMS	Hazardous Material Site

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HREC	Historic Recognized Environmental Condition: A previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).
HVAC	Heating, Ventilation, Air Conditioning
IAQ:	Indoor Air Quality
LACSD	Los Angeles County Sanitation Districts
LBP	Lead-based Paint
LLP	Landowner Liability Protections
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
mg/kg	milligram per kilogram
mg/L	milligram per Liter
MSL	Mean Sea Level
MTBE	Methyl Tertiary Butyl Ether
ND	None Detected
NFA	No Further Action
NOV	Notice of Violation
PEC	Potential Environmental Concern
PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances
PHMSA	US Department of Transportation, Pipeline and Hazardous Materials Safety Administration
PCB	Polychlorinated biphenyls
PCE	Perchloroethylene or Tetrachloroethylene
pCi/L	picoCuries per Liter
ppb	parts per billion
ppm	parts per million
PRP	Potential Responsible Party
RCRA	Resources Conservation and Recovery Act
REC	Recognized Environmental Condition (1) The presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the 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.
RP	Responsible Party
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SDS	Safety Data Sheets
SQG	Small Quantity Generator
SVOC	Semi-volatile Organic Compound
TCE	Trichloroethylene or Trichloroethene
TPH	Total Petroleum Hydrocarbons
µg/L	micrograms per Liter
USGS	United States Geological Survey

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UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VOCs	Volatile Organic Compounds

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Application for Authorization to Use

Appendix A

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Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Application for Authorization to Use

TO: Converse Consultants
Attention: Environmental Department
717 South Myrtle Avenue
Monrovia, California 91016

Project Title & Date: _____

Project Address: _____

FROM: (Please identify name & address of person/entity applying for permission to use the referenced report.)

_____

_____

_____

Applicant _____ hereby applies for permission to use the referenced report in order to:

_____

_____

_____

Applicant wishes or needs to use the referenced report because:

_____

_____

_____

Applicant also understands and agrees that the referenced document is a copyrighted document and shall remain the sole property of Converse Consultants. Unauthorized use or copying of the report is strictly prohibited without the express written permission of Converse Consultants. *Applicant* understands and agrees that Converse Consultants may withhold such permission at its sole discretion, or grant such permission upon agreement to Terms and Conditions, such as the payment of a re-use fee, amongst others.

Applicant Signature: _____

Applicant Name (print): _____

Title: _____

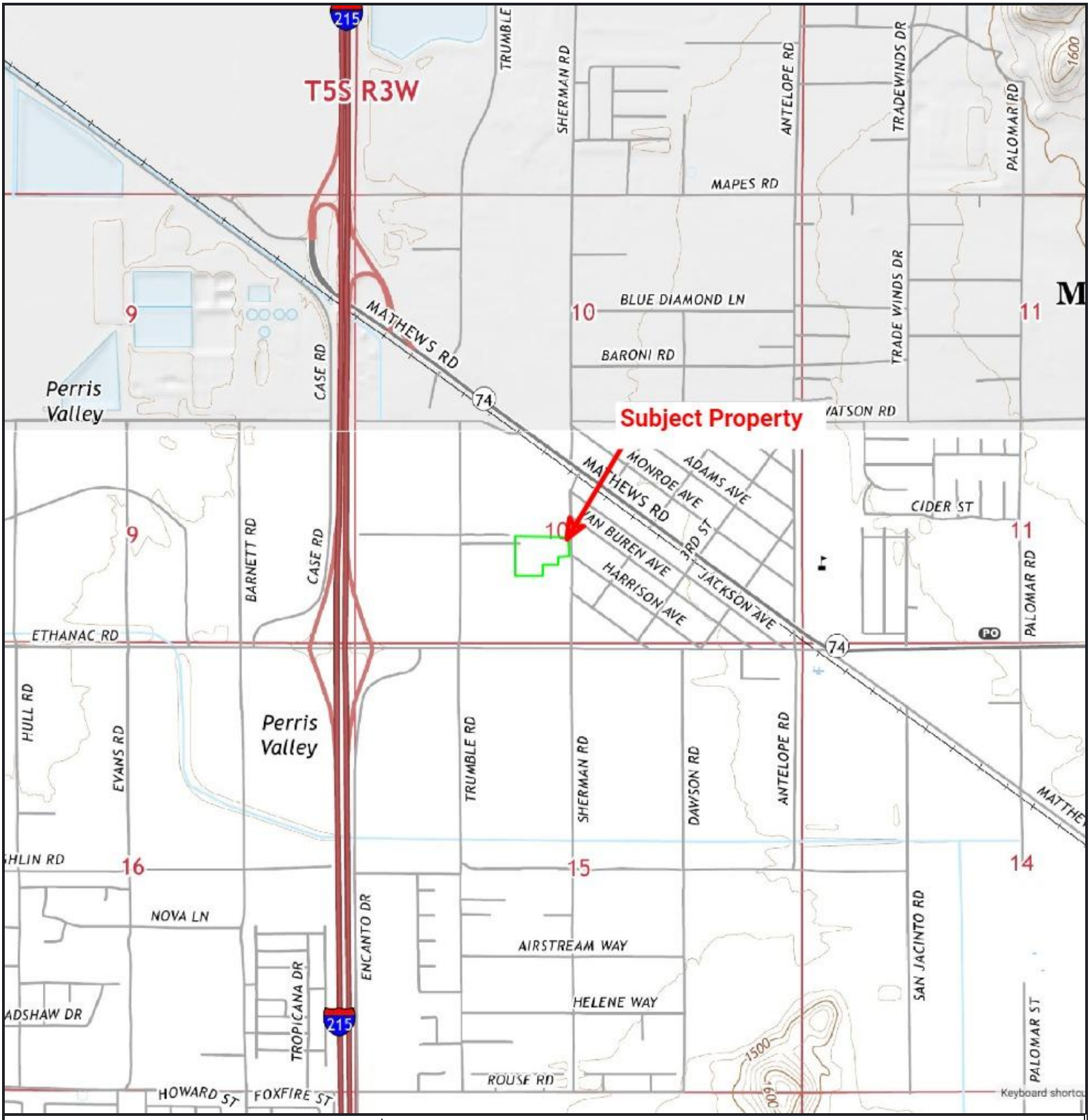
Date: _____

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Property Plans

Appendix B

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Converse Consultants
Geotechnical Engineering & Consulting
Environmental & Groundwater Science
Materials Testing & Inspection Services

Project Name:
MIG/Sherman Road

Project Location:
25775 Sherman Road, Perris, CA, 92570

Figure Name:
Subject Property Location Map

Figure No.:
1

APPROXIMATE SCALE	Project No.:	DATE
1:18000	24-16-137-01	September 24, 2024



Source/Year : Google Base Map	Converse Consultants Geotechnical Engineering & Consulting Environmental & Groundwater Science Materials Testing & Inspection Services	Project Name : MIG/Sherman Road	Address : 25775 Sherman Road, Perris, CA, 92570
		September 24, 2024	Figure Name : Subject Property Map | Figure No. : 2

Pertinent Property Photographs

Appendix C

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View of the entrance of the Subject Property from Sherman Road looking west.



View of a electric box to the north of the Subject Property's entrance.



Surficial stained soil near the entrance; looking to the southeast.



The northern portion of the Subject Property from the northwest corner looking east.



Western portion of the Subject Property from the northwest corner looking south.



Southern portion of Subject Property looking to the south.

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Parking area along the southeastern boundary of the Subject Property looking west.



Portable toilet along the southeastern boundary.



Two surficial stained areas by parked trucks. Approximately 4 x 4 feet and 2 x 2



Water spigot on the northeast corner of the Subject Property.



Backfilled areas along the eastern portion of the Subject Property near the entrance.



West adjacent property from the Subject Property's western edge.

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Southeast adjacent property from the western border of the Subject Property looking southeast.



A portion of the north adjacent property from the northwestern corner of the Subject Property.



Northwest adjacent property from the northwestern corner of the Subject Property.



Vacant lot to the east of the Subject Property with a pole-mounted transformer.

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Historical Information

Appendix D

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HISTORICAL AERIALS

Project Property: MIG/Sherman Road
25775 Sherman Road
Perris CA 92570

Project No: 24-16-137-01

Requested By: Converse Consultants

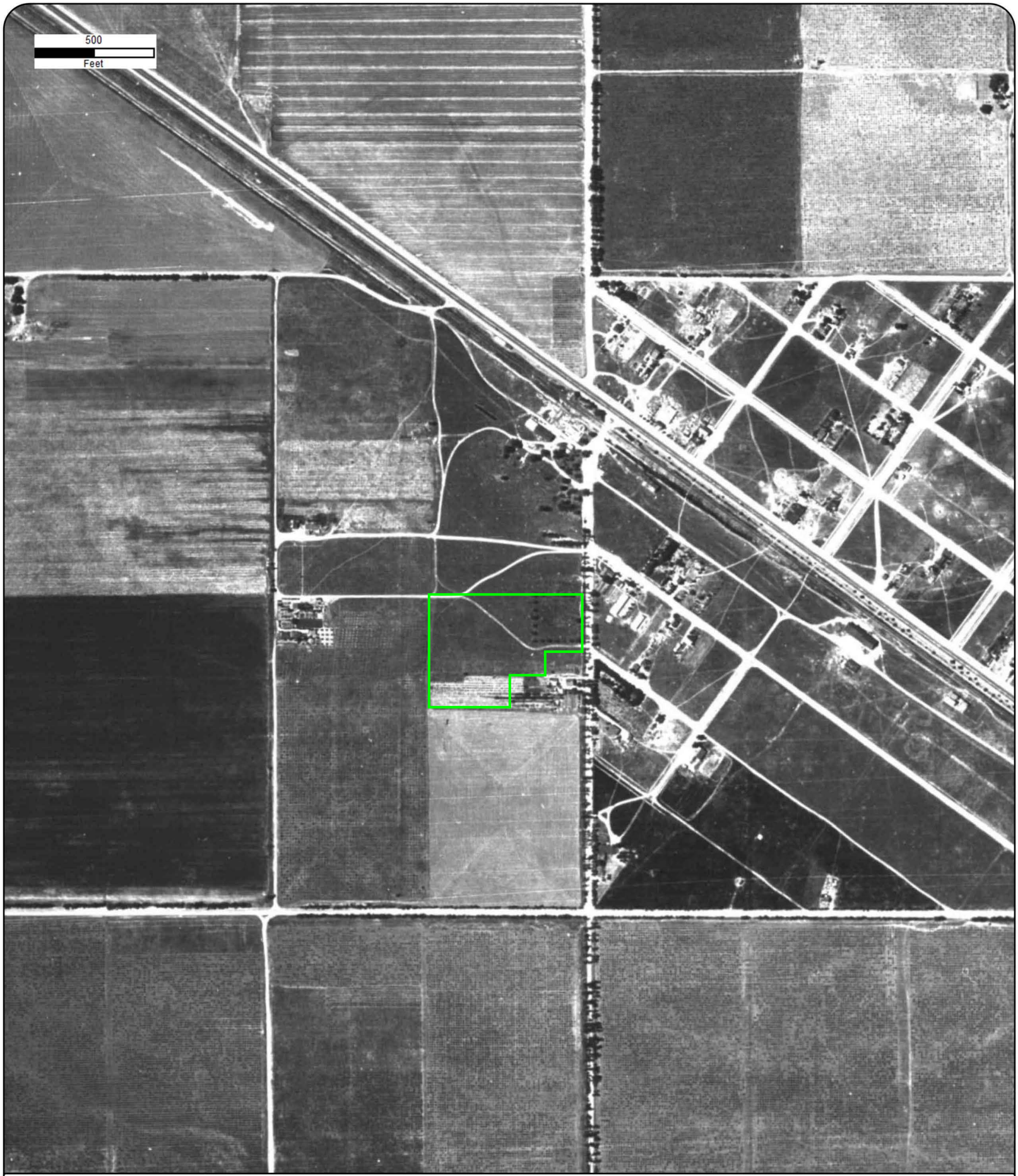
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Date Completed: September 17,2024

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Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Date	Source	Scale	Comments
1938	Agricultural Stabilization & Conserv. Service	1" = 500'	
1949	Agricultural Stabilization & Conserv. Service	1" = 500'	
1953	Agricultural Stabilization & Conserv. Service	1" = 500'	
1962	Fairchild	1" = 500'	
1966	United States Geological Survey	1" = 500'	
1976	Private	1" = 500'	
1985	United States Geological Survey	1" = 500'	
1989	United States Geological Survey	1" = 500'	Best Copy Available
1996	United States Geological Survey	1" = 500'	
2002	United States Geological Survey	1" = 500'	
2004	United States Department of Agriculture	1" = 500'	
2005	United States Department of Agriculture	1" = 500'	
2006	United States Department of Agriculture	1" = 500'	
2009	United States Department of Agriculture	1" = 500'	
2010	United States Department of Agriculture	1" = 500'	
2012	United States Department of Agriculture	1" = 500'	
2014	United States Department of Agriculture	1" = 500'	
2016	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2020	United States Department of Agriculture	1" = 500'	
2022	Maxar Technologies	1" = 500'	



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Source: ASCS
Scale: 1" = 500'
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Order No: 24091300824

ERIS



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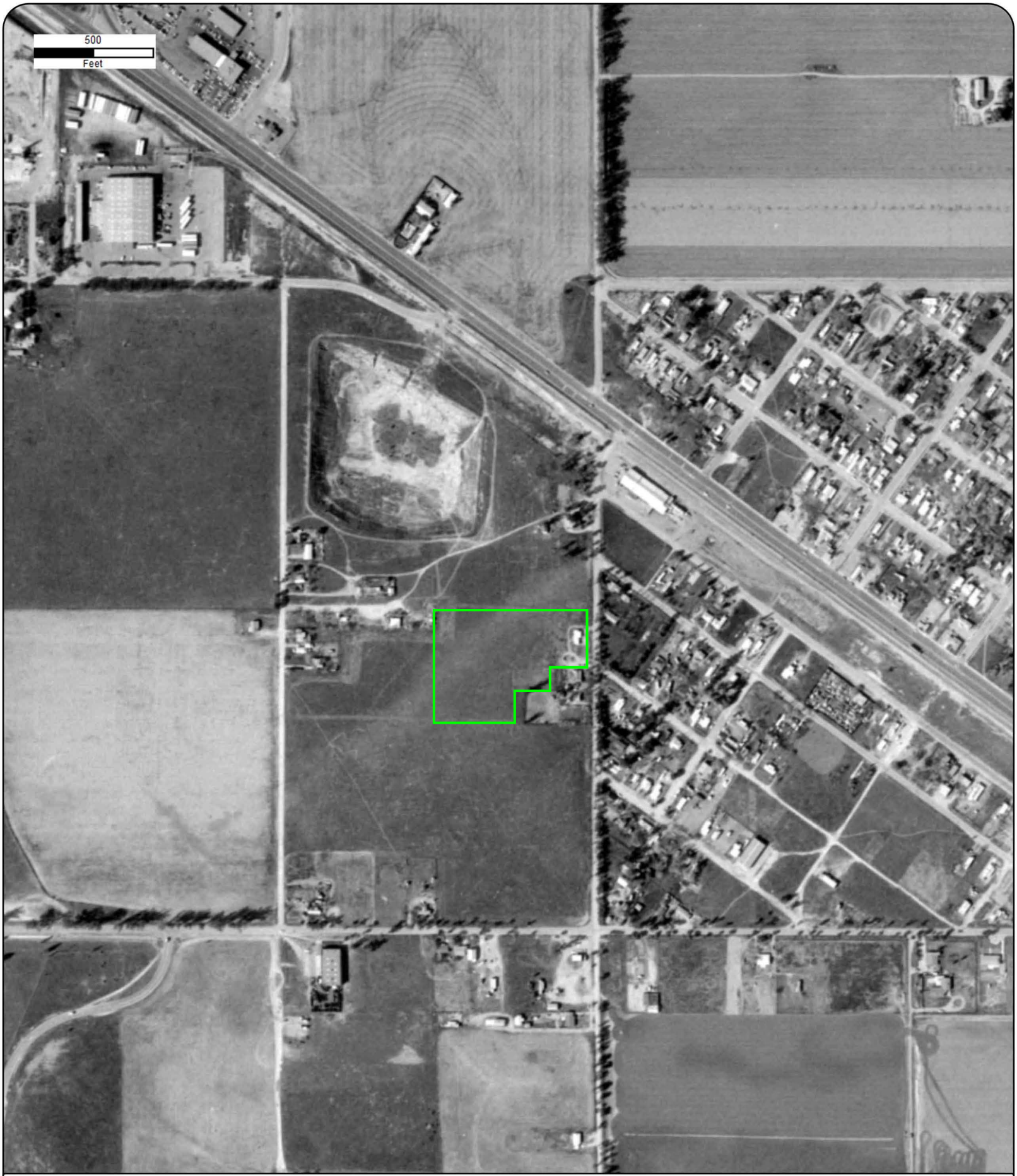


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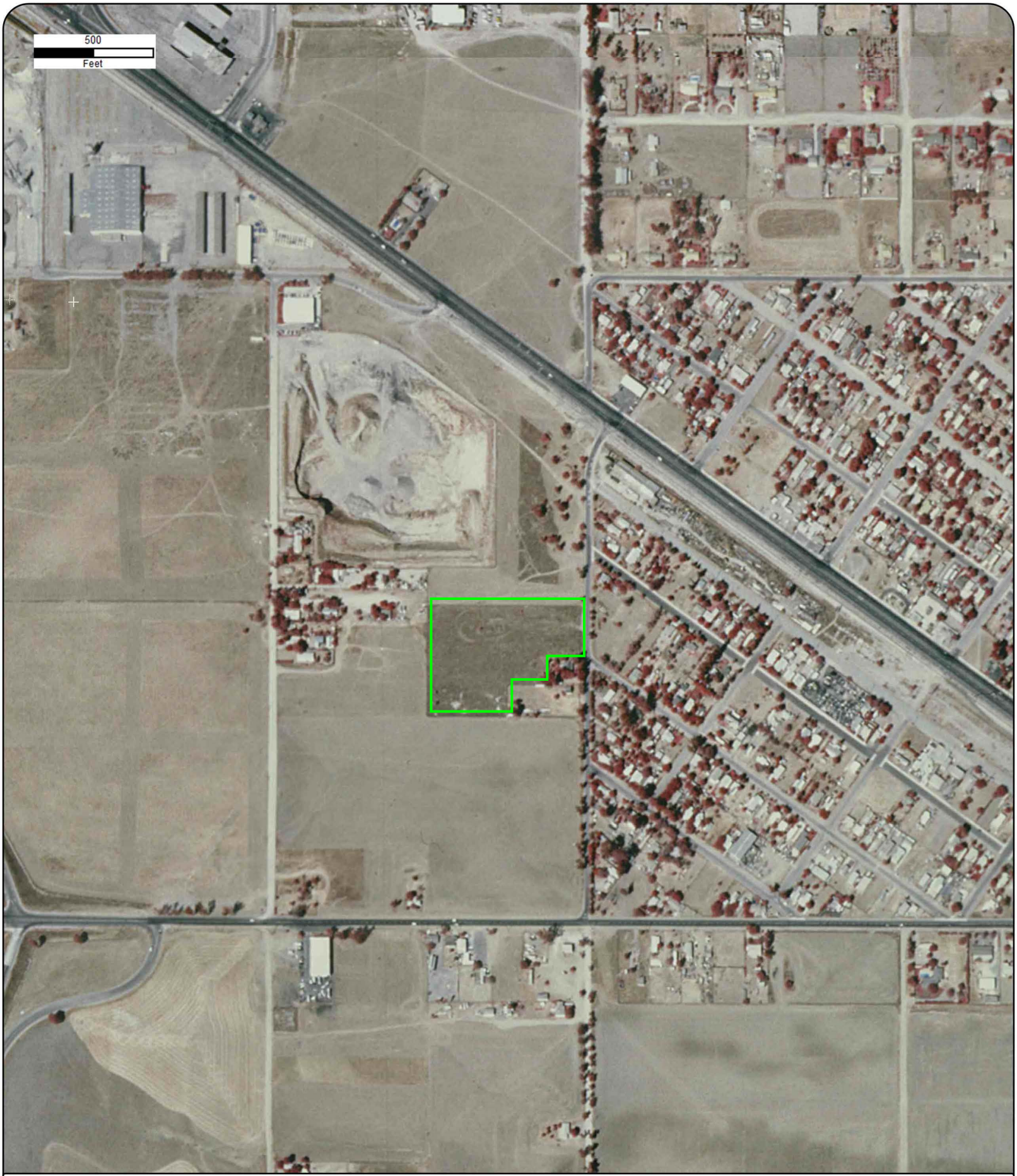


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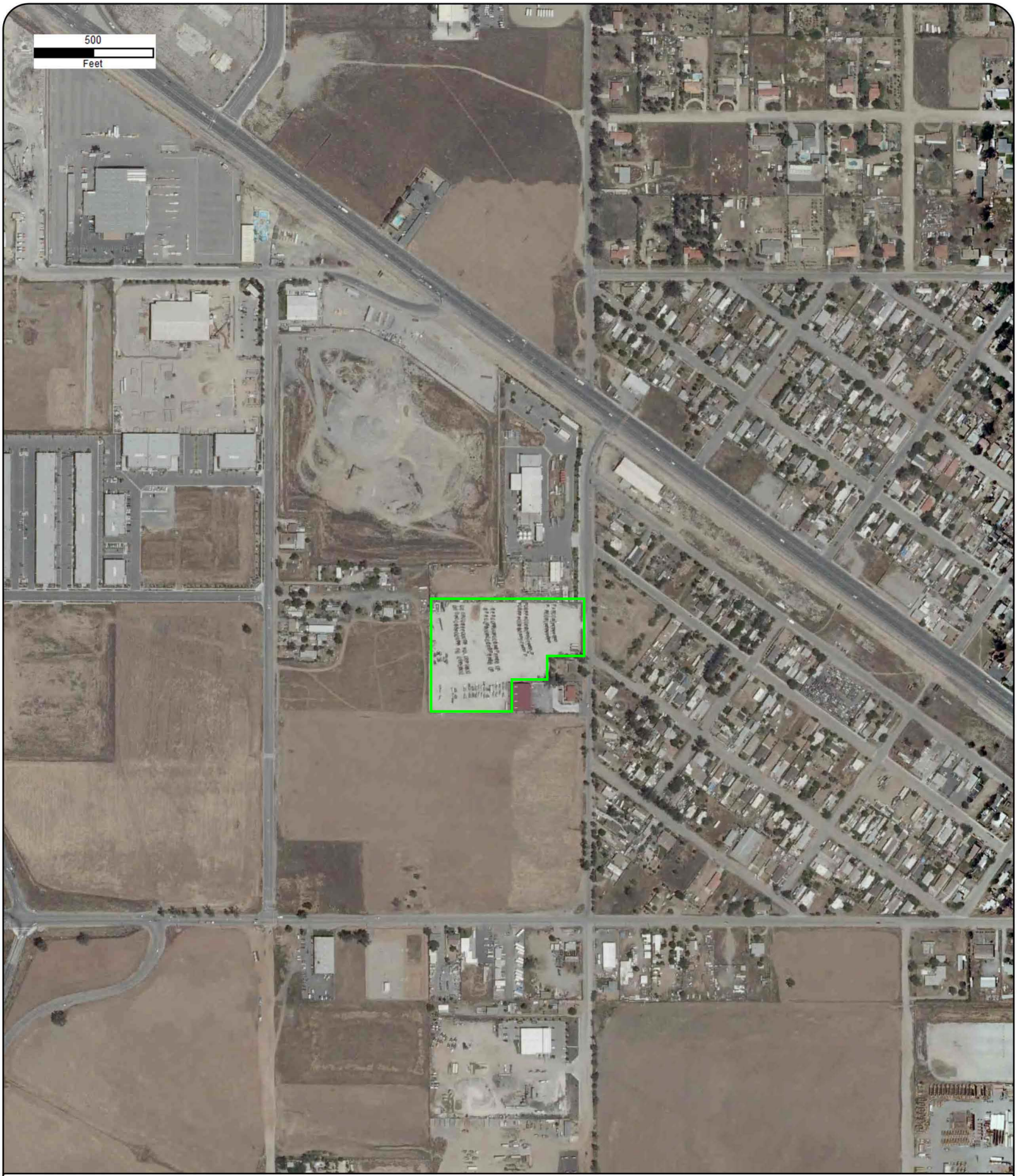


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Order No: 24091300824

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Year: 2010
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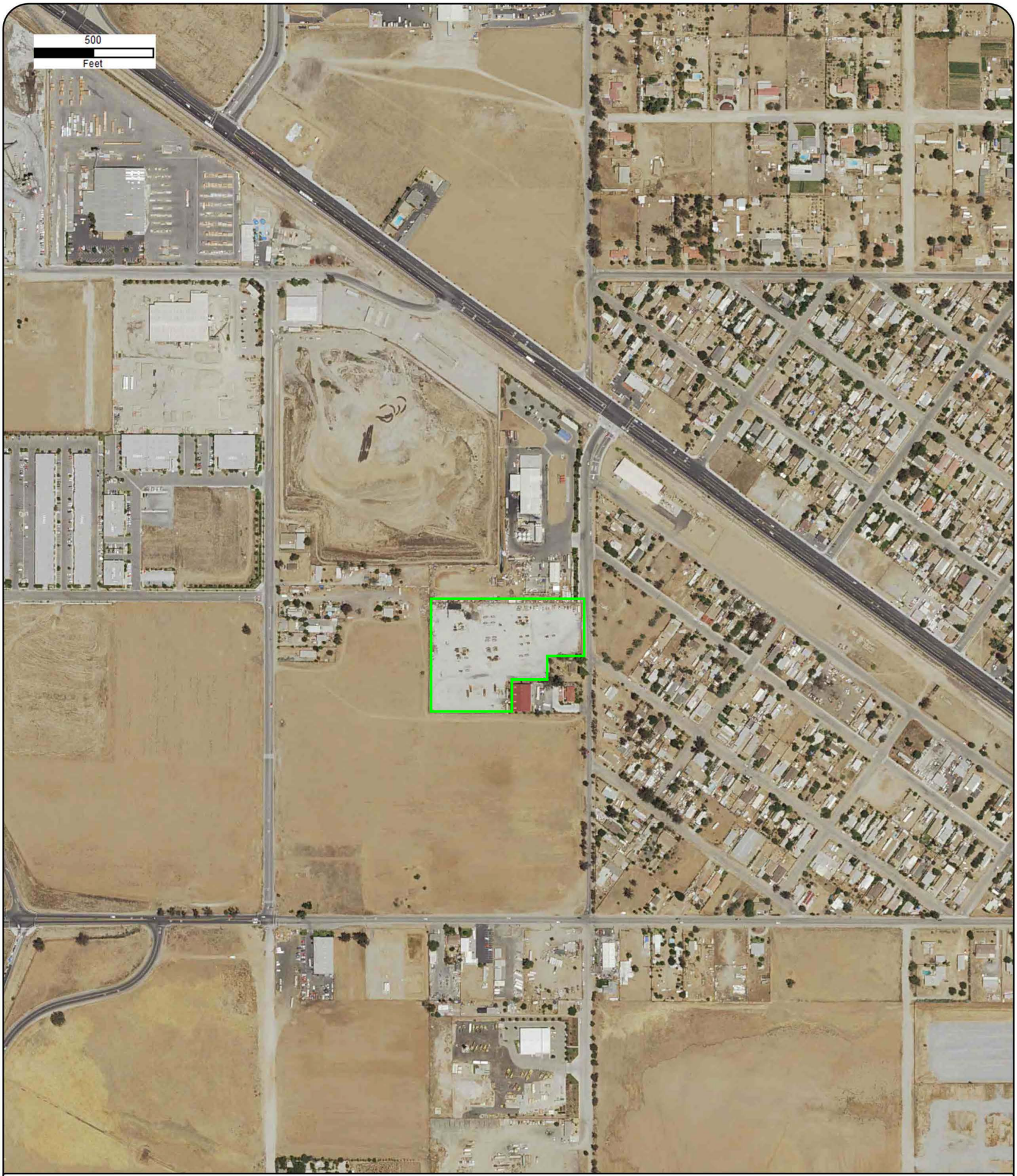


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Order No: 24091300824

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Order No: 24091300824

ERIS



Year: 2016
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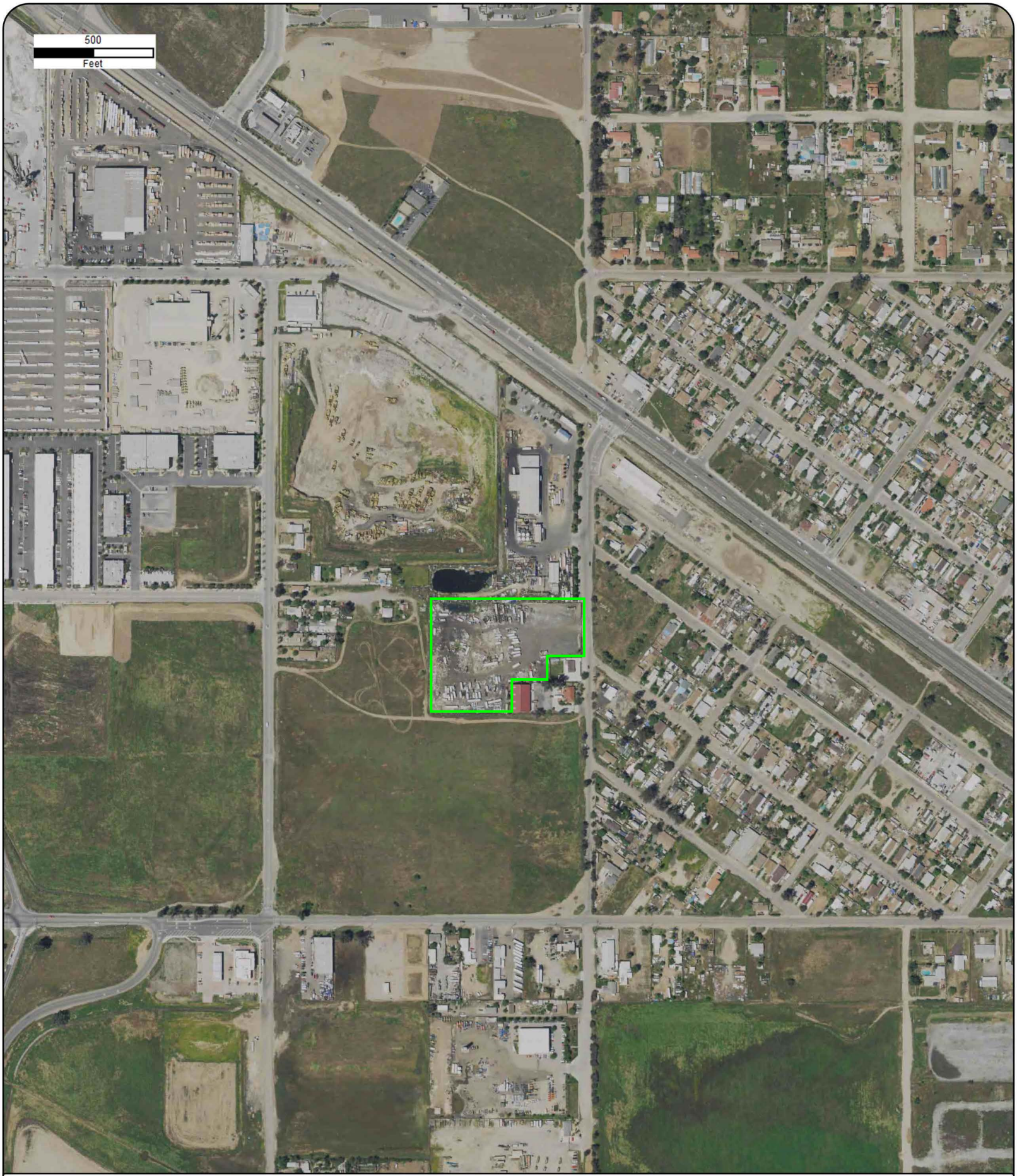


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Order No: 24091300824

ERIS

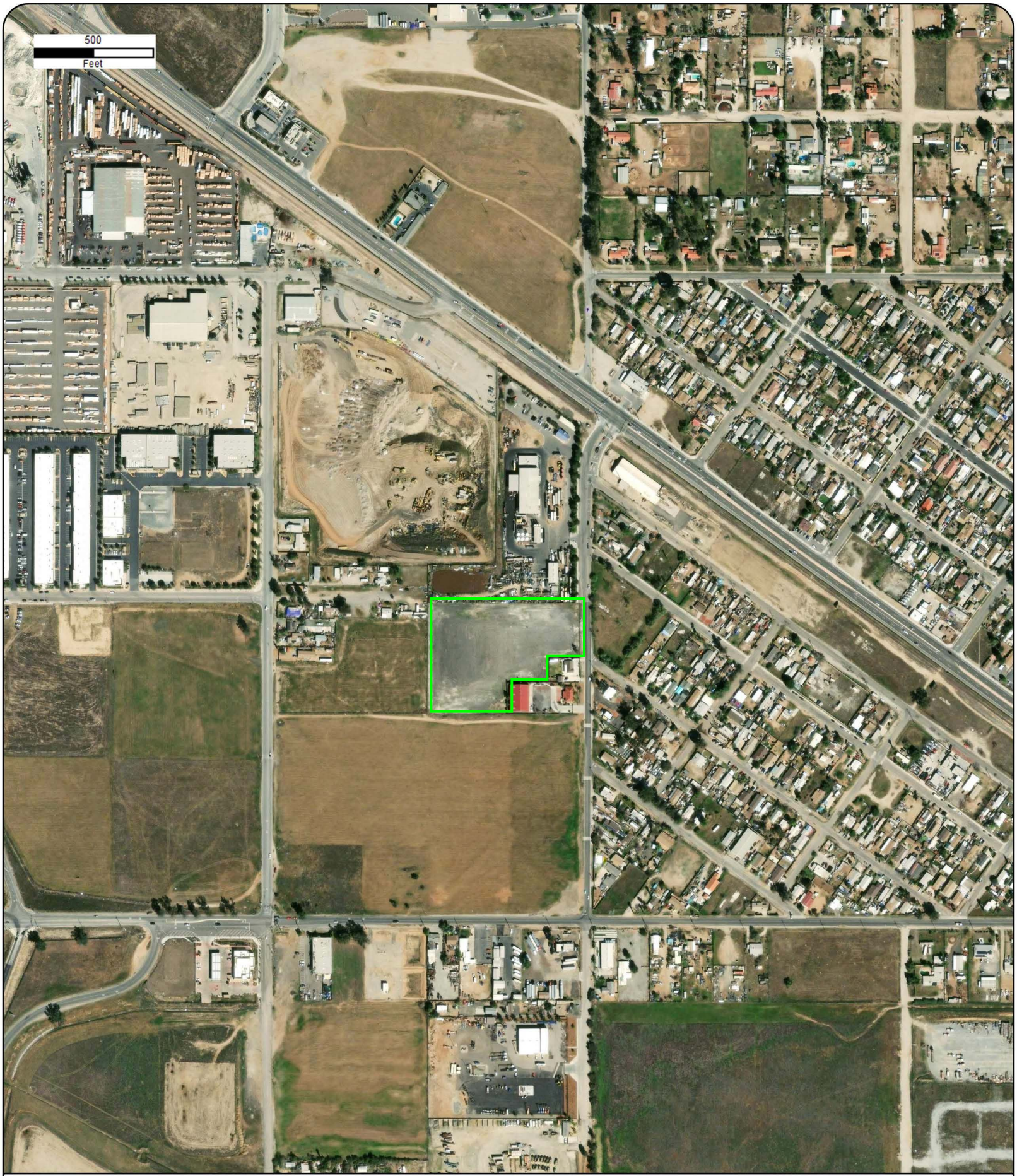


Year: 2020
Source: USDA
Scale: 1" = 500'
Comment:

Address: 25775 Sherman Road, Perris, CA
Approx Center: -117.18171643,33.74603389

Order No: 24091300824

ERIS



Year: 2022
Source: MAXAR
Scale: 1" = 500'
Comment:

Address: 25775 Sherman Road, Perris, CA
Approx Center: -117.18171643,33.74603389

Order No: 24091300824

ERIS

FIRE INSURANCE MAPS

Project Property:	MIG/Sherman Road 25775 Sherman Road Perris CA 92570
Project No:	24-16-137-01
Requested By:	Converse Consultants
Order No:	24091300824
Date Completed:	September 14, 2024

Please note that no information was found for your site or adjacent properties.

Environmental Risk Information Services
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1.866.517.5204 | info@erisinfo.com | erisinfo.com

TOPOGRAPHIC MAPS

Project Property:	MIG/Sherman Road
	25775 Sherman Road
	Perris CA 92570
Project No:	24-16-137-01
Requested By:	Converse Consultants
Order No:	24091300824
Date Completed:	September 14, 2024

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We have searched USGS collections of current topographic maps and historical topographic maps for the project property. Below is a list of maps found for the project property and adjacent area. Maps are from 7.5 and 15 minute topographic map series, if available.

Year	Map Series
1942	15
1943	15
1953	7.5
1973	7.5
1979	7.5
2015	7.5
2018	7.5
2022	7.5

Topographic Map Symbology for the maps may be available in the following documents:

Pre-1947

Page 223 of 1918 Topographic Instructions

Page 130 of 1928 Topographic Instructions

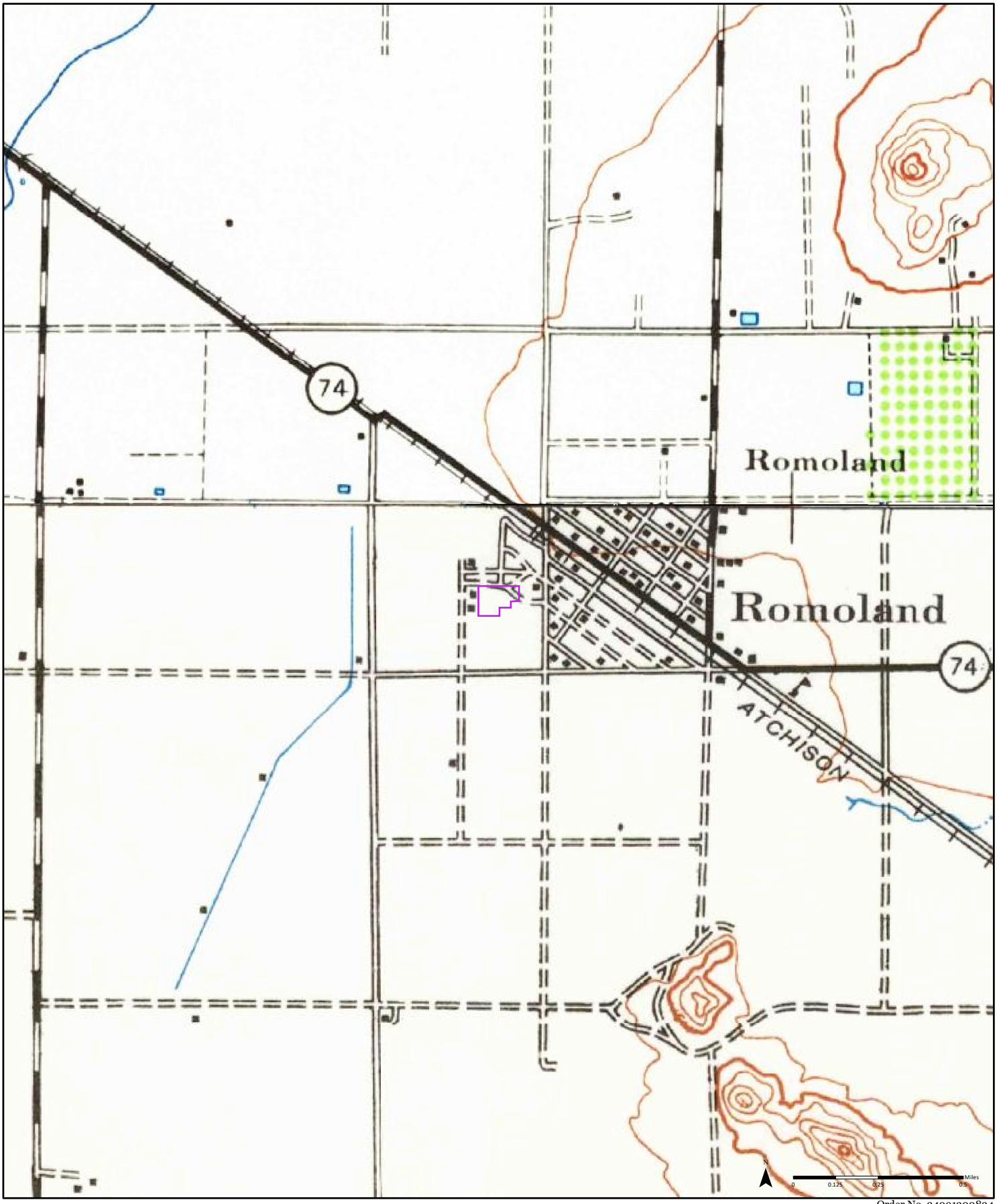
1947-2009

Topographic Map Symbols

2009-present

US Topo Map Symbols

Topographic Maps included in this report are produced by the USGS and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property.
No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Inc.(in the US) and ERIS Information Limited Partnership (in Canada), both doing business as 'ERIS', using Topographic Maps produced by the USGS. This maps contained herein does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein. Although ERIS has endeavored to present you with information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

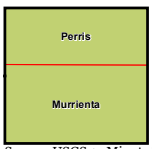


1942

(1-1942) *Aerial Photo Year: 1939*

(2-1942) *Aerial Photo Year: 1939*

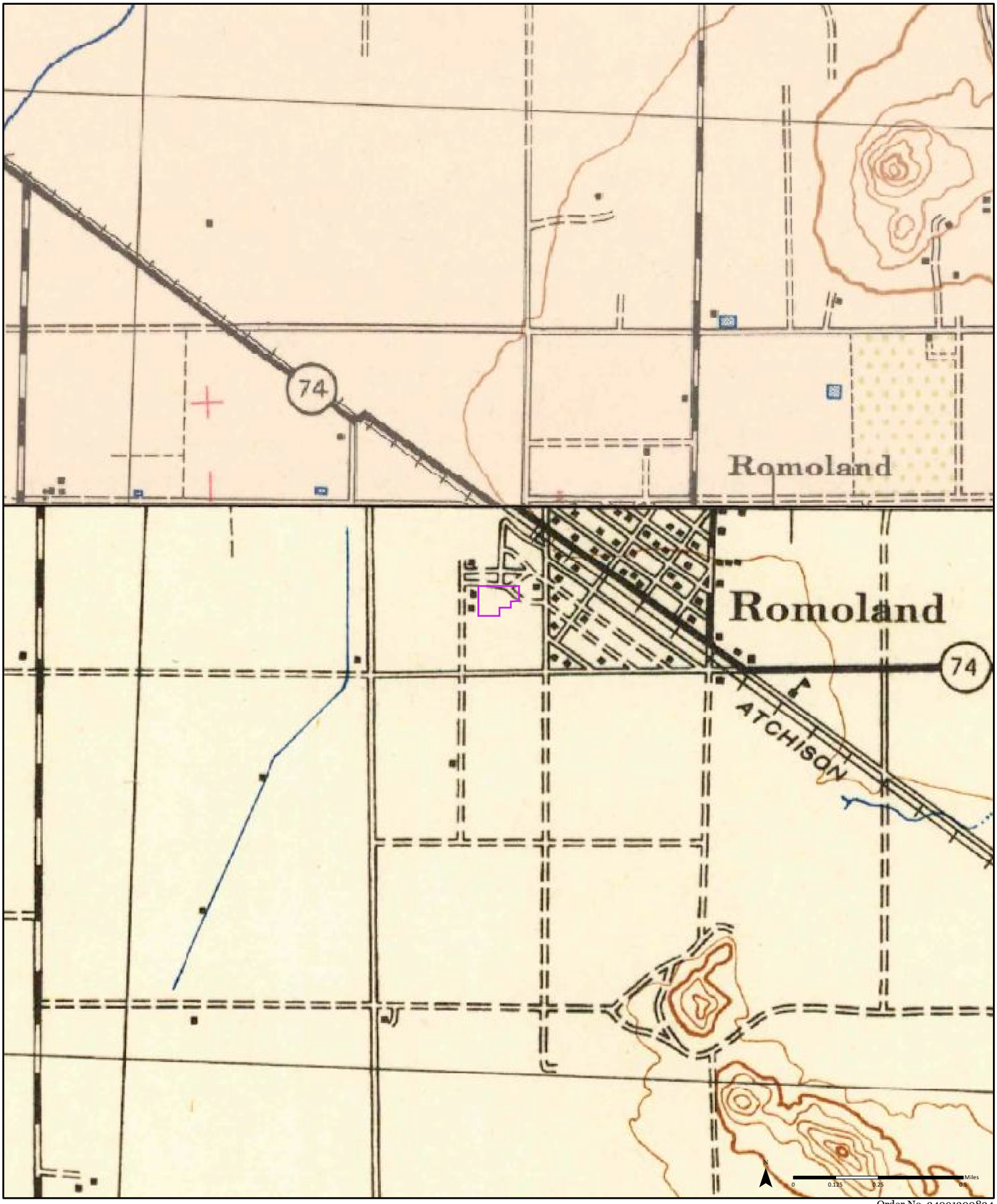
Order No. 24091300824



Available Quadrangle(s): Murrieta, CA(1-1942)
Perris, CA(2-1942)

Source: USGS 15 Minute Topographic Map

ERIS

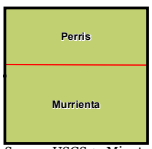


1943

(1-1943) *Aerial Photo Year: 1939*

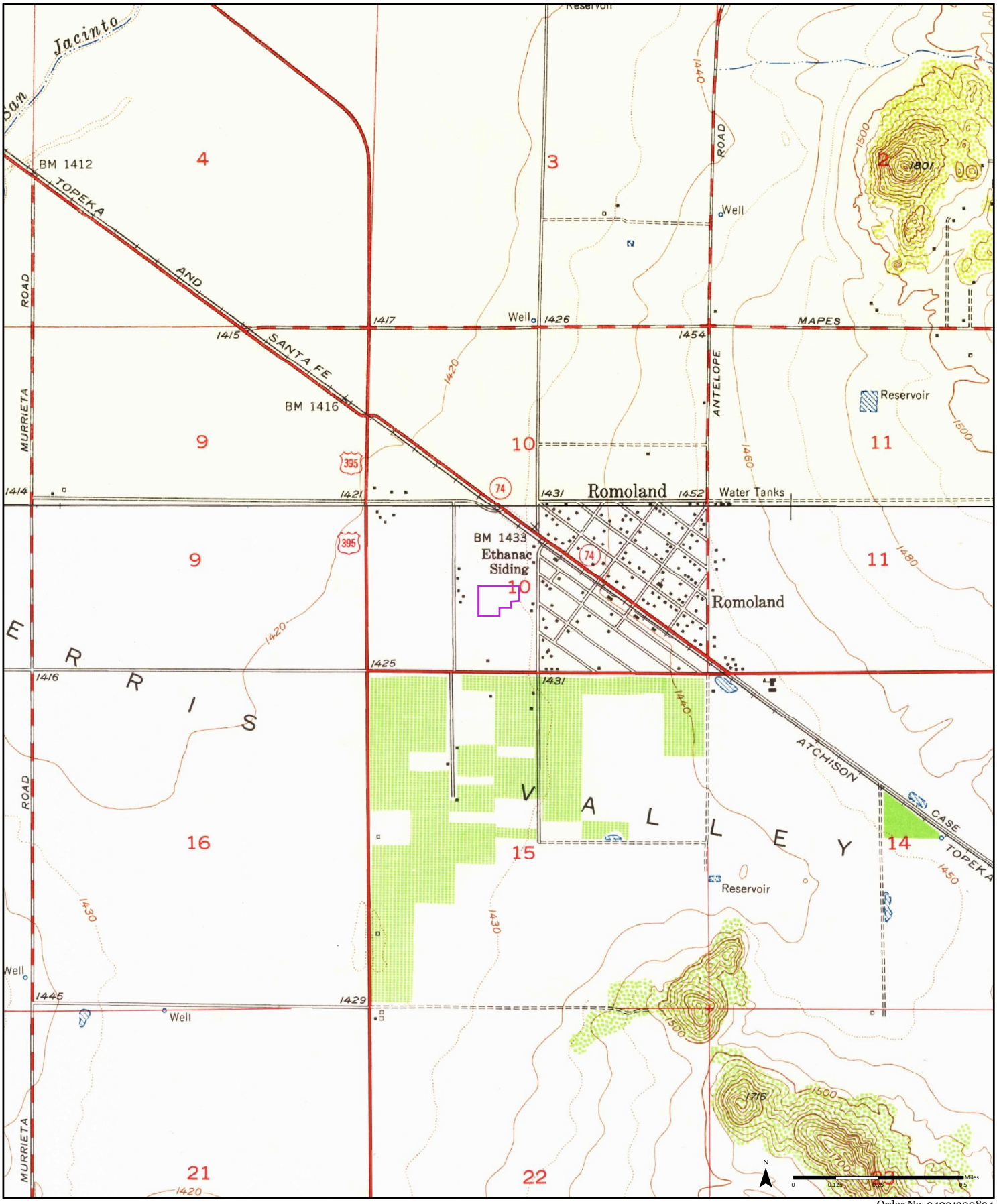
(2-1943) *Aerial Photo Year: 1939*

Order No. 24091300824



Available Quadrangle(s): Murrieta, CA(2-1943)
Perris, CA(1-1943)

Source: USGS 15 Minute Topographic Map

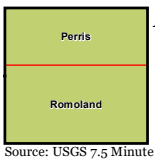


1953

(1-1953) *Aerial Photo Year: 1951*

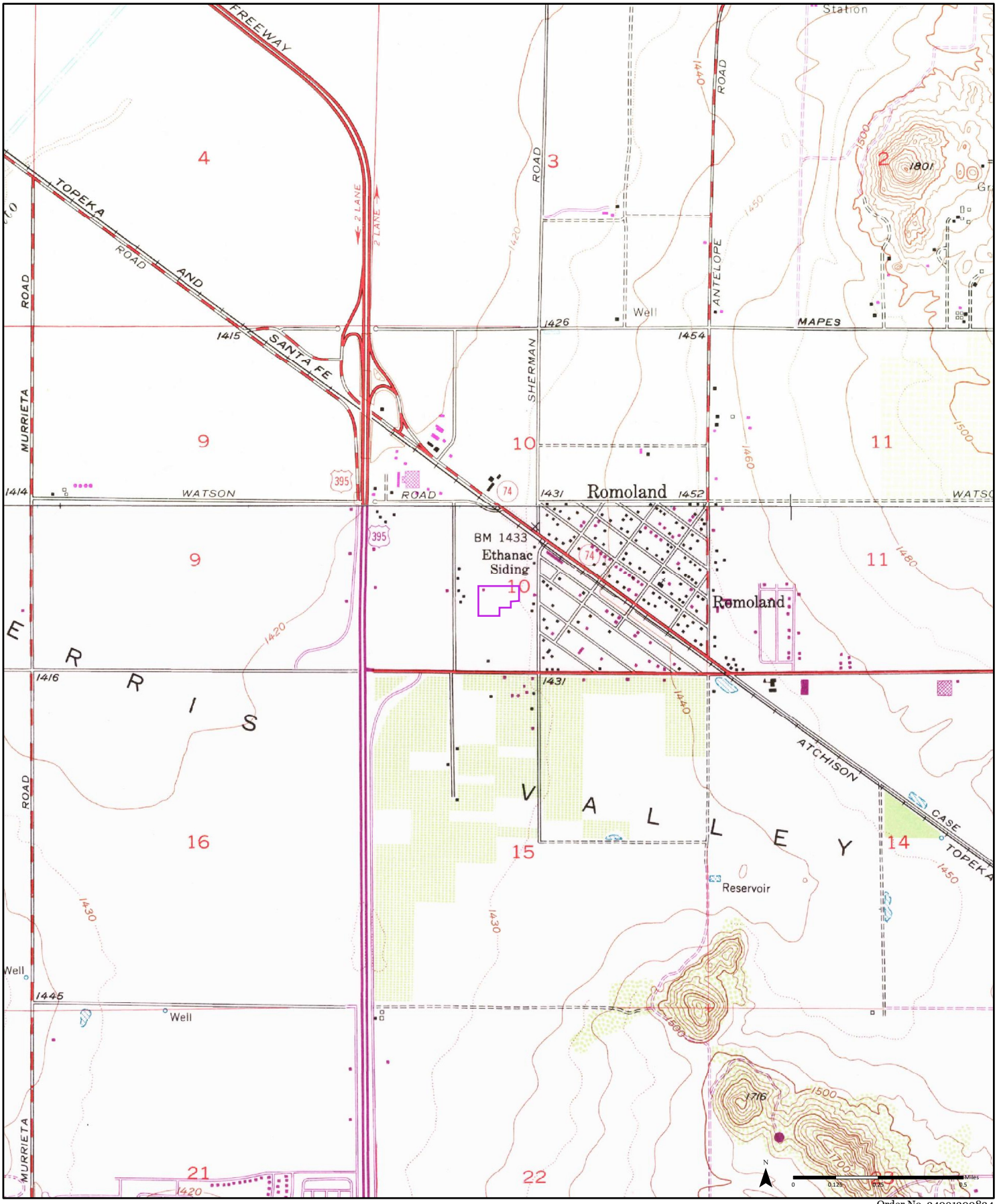
(2-1953) *Aerial Photo Year: 1951*

Order No. 24091300824



Available Quadrangle(s): Romoland, CA(2-1953)
Perris, CA(1-1953)

Source: USGS 7.5 Minute Topographic Map

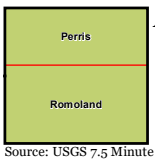


Order No. 24091300824

1973

(1-1973)
Aerial Photo Year: 1973
Photo Revision Year: 1973

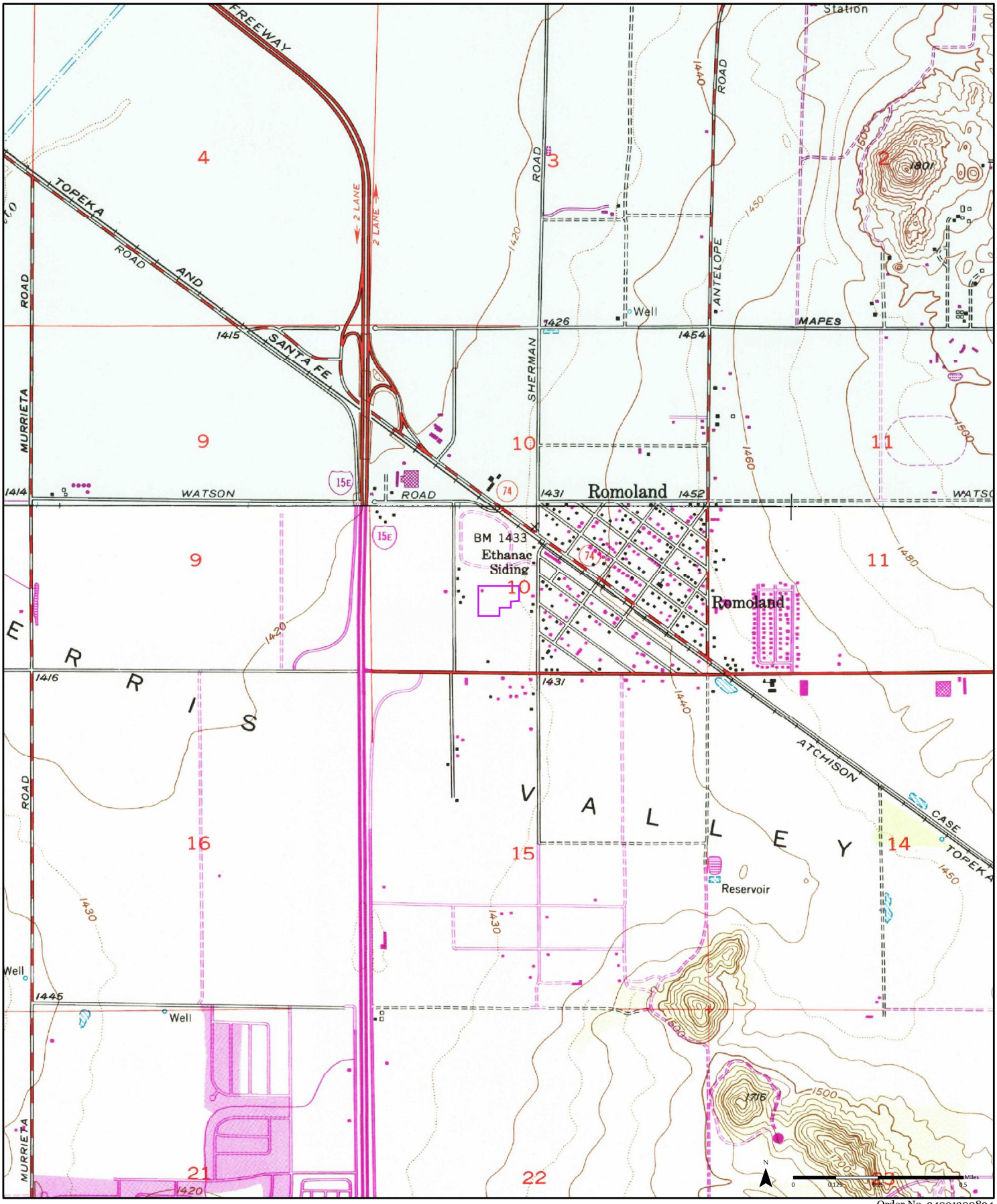
(2-1973)
Aerial Photo Year: 1973
Photo Revision Year: 1973



Available Quadrangle(s): Romoland, CA(2-1973)
Perris, CA(1-1973)

Source: USGS 7.5 Minute Topographic Map

ERIS

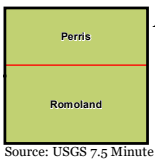


Order No. 24091300824

1979

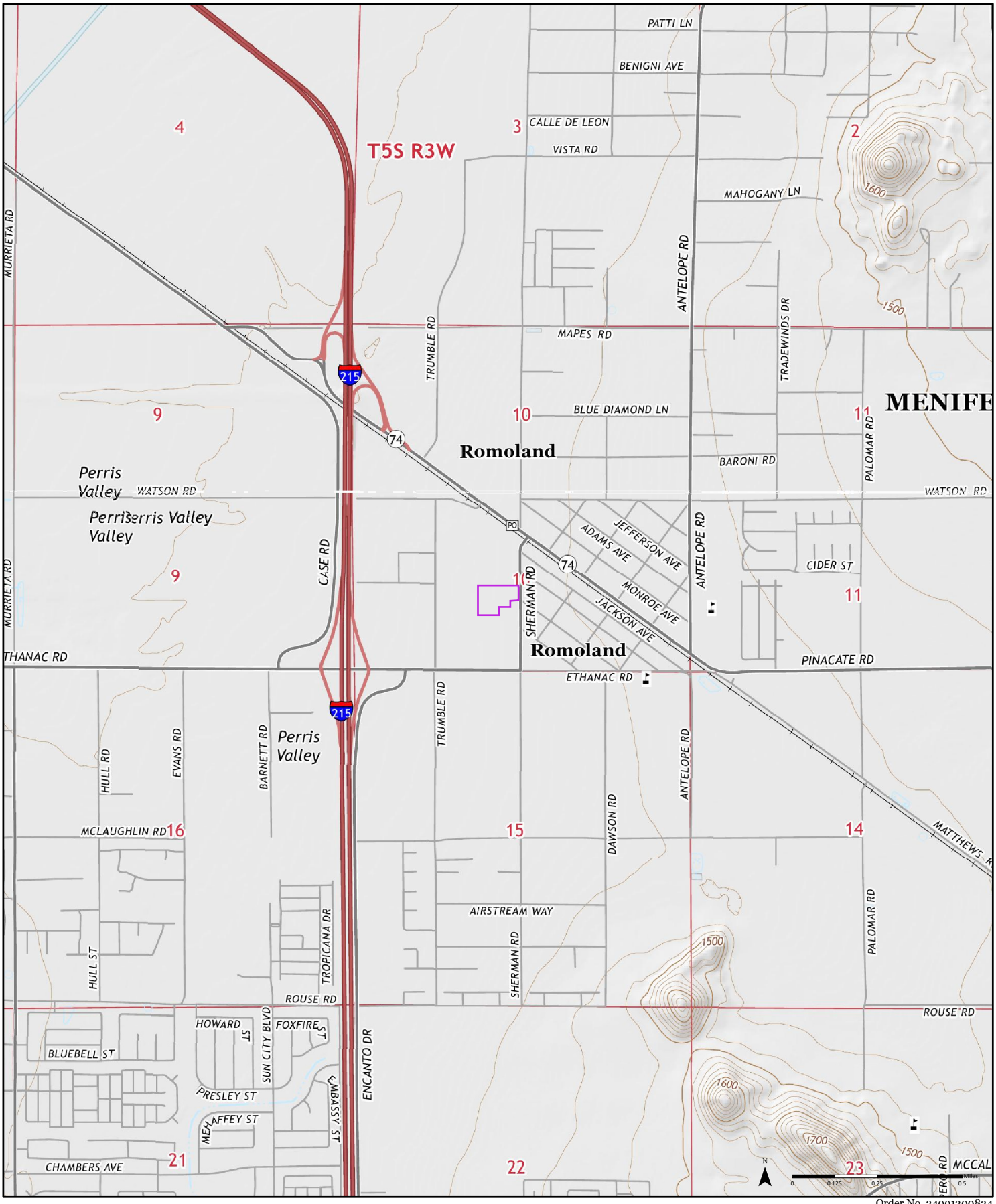
(1-1979)
Aerial Photo Year: 1978
Photo Revision Year: 1979

(2-1979)
Aerial Photo Year: 1976
Photo Revision Year: 1979



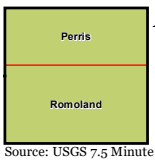
Available Quadrangle(s): Romoland, CA(2-1979)
Perris, CA(1-1979)

Source: USGS 7.5 Minute Topographic Map



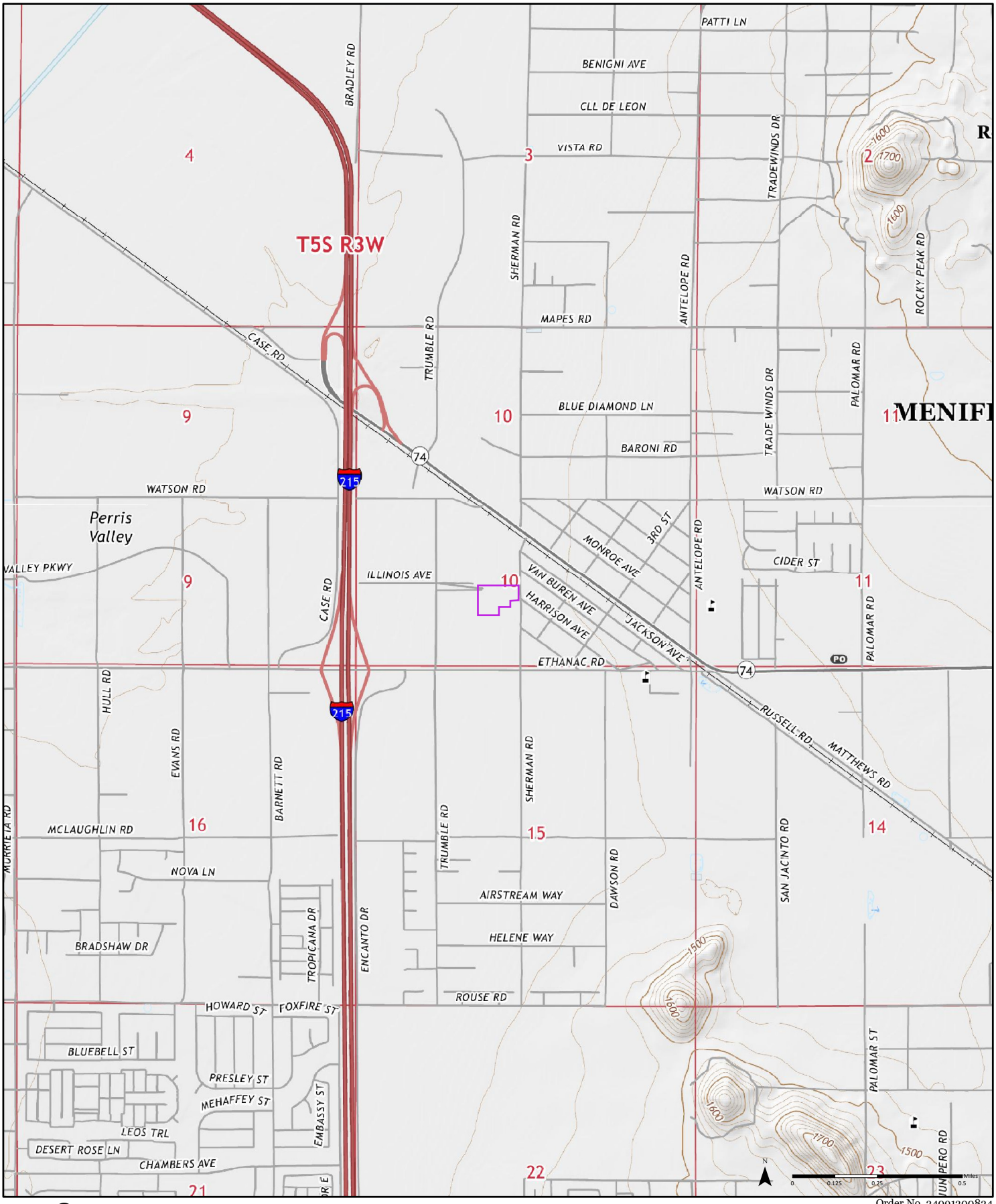
Order No. 24091300824

2015



Available Quadrangle(s): Romoland, CA
Perris, CA

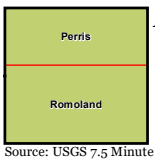
Source: USGS 7.5 Minute Topographic Map



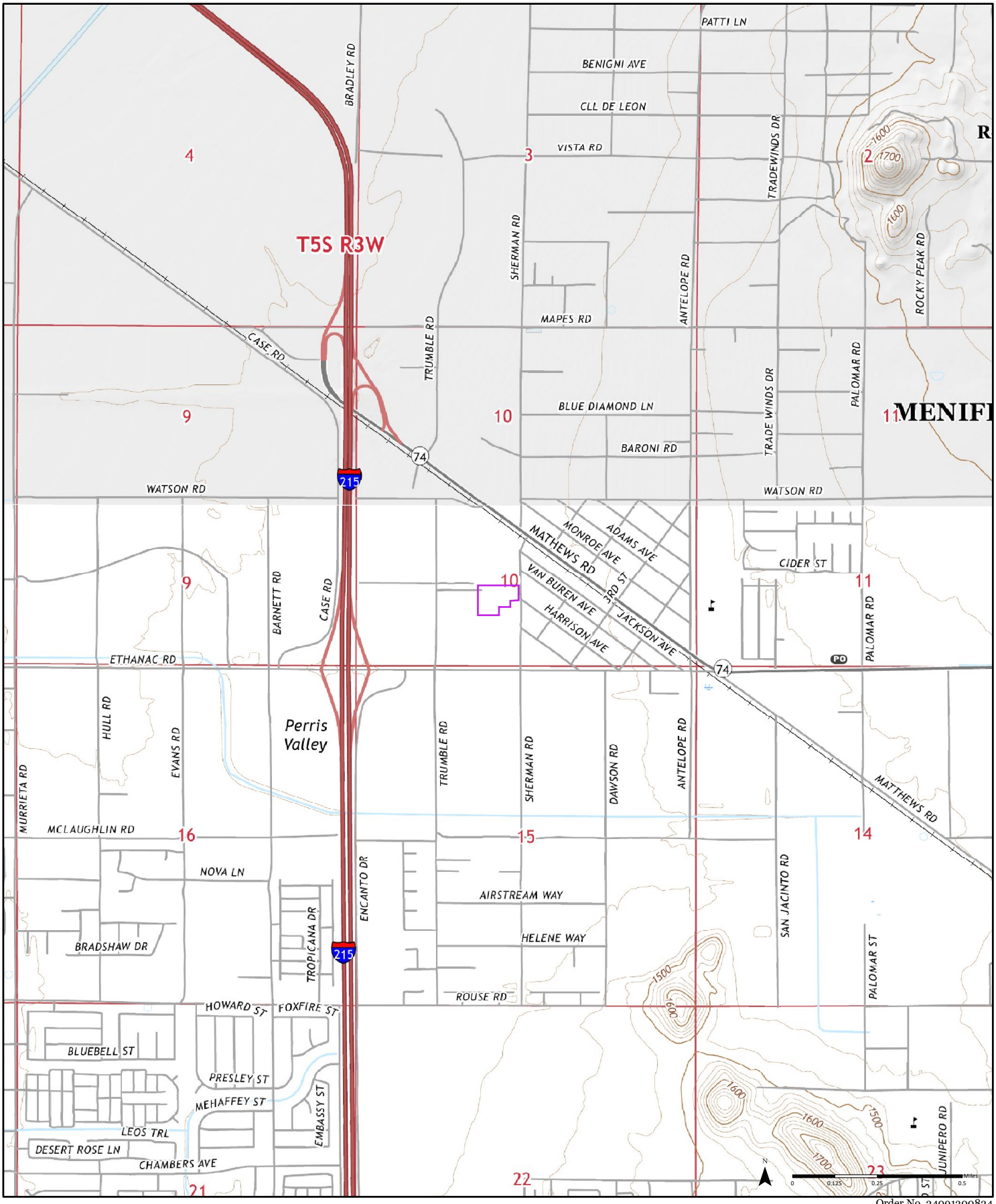
Order No. 24091300824

2018

Available Quadrangle(s): Romoland, CA
Perris, CA



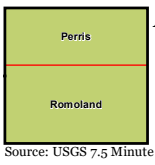
Source: USGS 7.5 Minute Topographic Map



Order No. 24091300824

2022

Available Quadrangle(s): Romoland, CA
Perris, CA



Source: USGS 7.5 Minute Topographic Map

CITY DIRECTORY

Project Property:	*MIG/Sherman Road* *25775 Sherman Road* *Perris,CA 92570*
Project No:	*24-16-137-01*
Requested By:	*Converse Consultants*
Order No:	*24091300824*
Date Completed:	*September 24, 2024*

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September 24, 2024
RE: CITY DIRECTORY RESEARCH
25775 Sherman Road
Perris,CA 92570

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:
25685-25950 of Sherman Rd
25760-25770 of Trumble Rd
Search Notes:

Search Results Summary

Date	Source	Comment
2023	DIGITAL BUSINESS DIRECTORY	
2020	DIGITAL BUSINESS DIRECTORY	
2016	DIGITAL BUSINESS DIRECTORY	
2012	DIGITAL BUSINESS DIRECTORY	
2008	DIGITAL BUSINESS DIRECTORY	
2003	DIGITAL BUSINESS DIRECTORY	
2000	DIGITAL BUSINESS DIRECTORY	
1996	HAINES	
1991	HAINES	
1986	HAINES	
1984	HAINES	
1977	HAINES	
1974	HAINES	

2023 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25685 **J N GREASE SVC**...*RECYCLING CENTERS (WHLS)*
25698 **OSCAR MUNOZ**...*RESIDENTIAL*
25870 **DOROTHY HUFF**...*RESIDENTIAL*
25898 **DANIRA MIRELES**...*RESIDENTIAL*
25898 **JULY SCHWARTZ**...*RESIDENTIAL*
25898 **LUIS ARCE SANCHEZ**...*RESIDENTIAL*
25898 **MINERVA MIRELES**...*RESIDENTIAL*
25898 **RAMSES MIRELES**...*RESIDENTIAL*
25908 **NICK LUCERO**...*RESIDENTIAL*
25920 **CHARLES BOWER**...*RESIDENTIAL*
25930 **ALFREDO SALAZAR**...*RESIDENTIAL*
25930 **CYNTHIA DEATON**...*RESIDENTIAL*

2023 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25760 **LINDA MARTIN**...*RESIDENTIAL*
25764 **BILLY OSBORN**...*RESIDENTIAL*

2020 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25685 **J N GREASE SVC**...*RECYCLING CENTERS (WHLS)*
25698 **OSCAR MUNOZ**...*RESIDENTIAL*
25870 **DOROTHY HUFF**...*RESIDENTIAL*
25898 **DANIRA MIRELES**...*RESIDENTIAL*
25898 **JULY SCHWARTZ**...*RESIDENTIAL*
25898 **LUIS ARCE SANCHEZ**...*RESIDENTIAL*
25898 **RAMSES MIRELES**...*RESIDENTIAL*
25908 **NICK LUCERO**...*RESIDENTIAL*
25920 **CHARLES BOWER**...*RESIDENTIAL*
25930 **ALFREDO SALAZAR**...*RESIDENTIAL*
25930 **CYNTHIA DEATON**...*RESIDENTIAL*

2020 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25760 **LINDA MARTIN**...*RESIDENTIAL*
25768 **ANN OSBORN**...*RESIDENTIAL*

2016 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25685 **J N GREASE SVC**...*RECYCLING CENTERS (WHLS)*
25870 **DOROTHY HUFF**...*RESIDENTIAL*
25898 **DANIRA MIRELES**...*RESIDENTIAL*
25898 **JULY SCHWARTZ**...*RESIDENTIAL*
25898 **LUIS ARCE SANCHEZ**...*RESIDENTIAL*
25898 **MINERVA MIRELES**...*RESIDENTIAL*
25898 **RAMSES MIRELES**...*RESIDENTIAL*
25898 **SIMEON MIRELES**...*RESIDENTIAL*
25908 **NICK LUCERO**...*RESIDENTIAL*
25920 **CHARLES BOWER**...*RESIDENTIAL*
25920 **ELENA TOGOE**...*RESIDENTIAL*
25930 **ALFREDO SALAZAR**...*RESIDENTIAL*
25930 **CYNTHIA DEATON**...*RESIDENTIAL*
25930 **MAXIMILIANO SALAZAR**...*RESIDENTIAL*

2016 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25760 **LINDA MARTIN**...*RESIDENTIAL*
25764 **BILLY OSBORN**...*RESIDENTIAL*
25768 **ANN OSBORN**...*RESIDENTIAL*

2012 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25930 **CYNTHIA DEATON**...*RESIDENTIAL*
25930 **MAXIMILIANO SALAZAR**...*RESIDENTIAL*
25940 **ROCIO ROJORIOS**...*RESIDENTIAL*
25940 **ROJO NORBERTO**...*RESIDENTIAL*

2012 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25764 **BILLY OSBORN**...*RESIDENTIAL*
25768 **ANN HANEY**...*RESIDENTIAL*
25768 **ANN HANNEY**...*RESIDENTIAL*
25768 **BILLY OSBORN**...*RESIDENTIAL*
25768 **COREY OSBORN**...*RESIDENTIAL*
25768 **MARGARET OSBORN**...*RESIDENTIAL*
25768 **RYAN OSBORN**...*RESIDENTIAL*

2008 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25685 **C W COLE FABRICATORS**...*FABRICATED STRL MTL*
25685 **C W COLE FABRICATORS**...*STEEL-STRUCTURAL (MANUFACTURERS)*
25698 **WILLIAM BROOKS**...*RESIDENTIAL*
25930 **LEONEL MARTINEZ**...*RESIDENTIAL*
25930 **MAXIMILIANO SALAZAR**...*RESIDENTIAL*

2008 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2003 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2003 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2000 SHERMAN RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25920 **GREWER GARY**...*RESIDENTIAL*
25930 **WHITE HELEN**...*RESIDENTIAL*

2000 TRUMBLE RD

SOURCE: DIGITAL BUSINESS DIRECTORY

25760 **SHURVINTON THOMAS**...*RESIDENTIAL*
25768 **DELAGARRIGUE TOM**...*RESIDENTIAL*
25768 **OSBORN BILLY H**...*RESIDENTIAL*

1996 SHERMAN RD

SOURCE: HAINES

25641	**XXXX**
25685	**XXXX**
25698	**XXXX**
25775	**XXXX**
25920	**GREWER GARY**
25920	**GREWER LAURA**
25930	**WHITE HELEN**
25940	**XXXX**
25962	**GILBREATH GEO**

1996 TRUMBLE RD

SOURCE: HAINES

25750	**XXXX**
25760	**LINDNER JOHN**
25760	**SHURVINTON THOS**
25760	**WHITAKER TODD**
25764	**XXXX**
25768	**DELAGARRIGUE ANN**
25768	**DELAGARRIGUE TOM**
25768	**OSBORN BILLY H**
25780	**XXXX**

1991 SHERMAN RD

SOURCE: HAINES

25641	**XXXX**
25685	**XXXX**
25698	**XXXX**
25775	**XXXX**
25920	**GREWER GARY**
25920	**GREWER LAURA**
25930	**WHITE HELEN**
25940	**XXXX**
25962	**GILBREATH GEO**

1991 TRUMBLE RD

SOURCE: HAINES

25750	**CAYER BENNY D**
25760	**SHURVINTON THOS**
25764	**CLAYTON B B**
25768	**DELAGARRIGUE ANN**
25768	**DELAGARRIGUE TOM**
25768	**OSBORN BILLY H**
25780	**OSBORN CARL**

1986 SHERMAN RD

SOURCE: HAINES

25641	**XXXX**
25685	**XXXX**
25698	**RAMSEY MICHAEL**
25775	**XXXX**
25809	**XXXX**
25846	**BERGINE DEE**
25846	**BERGINE MATTHEW**
25870	**XXXX**
25898	**STERLING GEO T**
25908	**ARMSTRONG PERRY**
25920	**GREWER GARY**
25930	**WHITE HELEN**
25940	**WHITE DAVID**
25962	**XXXX**

1986 TRUMBLE RD

SOURCE: HAINES

25750	**FUENTES IVAN**
25760	**MCELWAIN J B**
25760	**SHURVINTON THOS**
25768	**(25768) DELAGARRIGUE ANN**
25768	**(25768) DELAGARRIGUE TOM**
25768	**(25768) OSBORN BILLY H**
25780	**OSBORN CARL**

1984 SHERMAN RD

SOURCE: HAINES

25641 **XXXX**
25685 **ASHLEY DONNIE**
25688 **MORGAN CHAS**
25698 **XXXX**
25775 **XXXX**
25803 **ODONNELL ELIZABETH**
25846 **KRIZ JOE**
25870 **FOSHAY KENNETH**
25898 **STERLING GEO T**
25908 **TIELENS JAMES D**
25930 **WHITE HELEN**
25940 **WHITE DAVID**
25962 **XXXX**

1984 TRUMBLE RD

SOURCE: HAINES

25750 **FUENTES IVAN**
25760 **MCELWAIN J B**
25768 **OSBORN BILLY H**
25780 **OSBORN CARL**

1977 SHERMAN RD

SOURCE: HAINES

25641	**MILLER JANIE**
25685	**ASHLEY DONNIE**
25775	**XXXX**
25809	**STARNES JACK O**
25846	**KRIZ JOE**
25870	**FOSHAY KENNETH**
25898	**FLANNAGAN JAS M**
25898	**STERLING GEO T**
25908	**WORTHINGTON SHEILA**
26061	**BRANDT TOM**
26061	**DALLMAN LOWELL D**
26061	**WINFREY MARY G**

1977 TRUMBLE RD

SOURCE: HAINES

25750	**MURPHY BERTHA T**
25760	**GRAY DENNIS**
25760	**GRAY LEWIS**
25768	**OSBORN BILLY H**
25780	**XXXX**

1974 SHERMAN RD

SOURCE: HAINES

25641	**MILLWEE FAY**
25685	**STARNES F W MRS**
25809	**STARNES JACK O**
25846	**KRIZ JOE**
25870	**FOSHAY KENNETH**
25898	**FLANNAGAN JAS M**
25898	**STERLING GEO T**
25898	**STERLING MARY E**
25908	**MORTON J R**
26061	**A 1 REFRIGERATN SV**
26061	**GORET FAYE**

1974 TRUMBLE RD

SOURCE: HAINES

25750	**MURPHY BERTHA T**
25760	**GRAY LEWIS**
25768	**MILLER BYOS**
25780	**XXXX**

Database Report

Appendix E

Copyright 2024 Converse Consultants

DATABASE REPORT

Project Property:	*MIG/Sherman Road* *25775 Sherman Road* *Perris CA 92570*
Project No:	*24-16-137-01*
Report Type:	*Database Report*
Order No:	*24091300824*
Requested by:	*Converse Consultants*
Date Completed:	*September 17, 2024*

Environmental Risk Information Services
A division of Glacier Media Inc.
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Table of Contents

Table of Contents.....2
Executive Summary.....3
Executive Summary: Report Summary.....4
Executive Summary: Site Report Summary - Project Property.....9
Executive Summary: Site Report Summary - Surrounding Properties.....10
Executive Summary: Summary by Data Source.....14
Map.....21
Aerial.....24
Topographic Map.....25
Detail Report.....26
Unplottable Summary.....128
Unplottable Report.....129
Appendix: Database Descriptions.....130
Definitions.....149

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Executive Summary

Property Information:

Project Property:	*MIG/Sherman Road* *25775 Sherman Road Perris CA 92570*
Project No:	*24-16-137-01*

Coordinates:

Latitude:	*33.74603389*
Longitude:	*-117.18171643*
UTM Northing:	*3,734,012.13*
UTM Easting:	*483,169.10*
UTM Zone:	*UTM Zone 11S*

Elevation: *1,432 FT*

Order Information:

Order No:	*24091300824*
Date Requested:	*September 13, 2024*
Requested by:	*Converse Consultants*
Report Type:	*Database Report*

Historicals/Products:

Aerial Photographs	*Historical Aerials (with Project Boundaries)*
City Directory Search	*Smart CD Search*
ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*
Fire Insurance Maps	*US Fire Insurance Maps*
Physical Setting Report (PSR)	*Physical Setting Report (PSR)*
Product Summary	*Product Summary for Aerials, FIMs & Topos*
Topographic Map	*Topographic Maps*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	**1**	-	-	**1**
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	**6**	-	-	**6**
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	**1**	-	**1**
FEMA UST	Y	0.25	0	0	0	-	-	0
FRP	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
DELISTED FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
DOE FUSRAP	Y	1	0	0	0	0	0	0
State								
RESPONSE	Y	1	0	0	0	0	0	0
ENVIROSTOR	Y	1	0	0	0	0	**1**	**1**
DELISTED ENVS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWRCB SWF	Y	0.5	0	0	0	0	-	0
WMUD	Y	0.5	0	0	0	**2**	-	**2**
HWP	Y	1	0	0	0	0	0	0
SWAT	Y	0.5	0	0	0	0	-	0
C&D DEBRIS RECY	Y	0.5	0	0	0	**2**	-	**2**
RECYCLING	Y	0.5	0	0	0	0	-	0
PROCESSORS	Y	0.5	0	0	0	0	-	0
CONTAINER RECY	Y	0.5	0	0	0	0	-	0
LDS	Y	0.5	0	0	0	**2**	-	**2**
LUST	Y	0.5	0	0	**2**	**3**	-	**5**
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	**1**	-	-	**1**
UST CLOSURE	Y	0.5	0	0	0	0	-	0
HHSS	Y	0.25	0	0	0	-	-	0
UST SWEEPS	Y	0.25	0	0	**1**	-	-	**1**
AST	Y	0.25	0	0	0	-	-	0
AST SWRCB	Y	0.25	0	0	0	-	-	0
TANK OIL GAS	Y	0.25	0	0	0	-	-	0
DELISTED TNK	Y	0.25	0	0	0	-	-	0
CERS TANK	Y	0.25	0	0	**1**	-	-	**1**
DELISTED CTNK	Y	0.25	0	0	0	-	-	0
HIST TANK	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
LUR	Y	0.5	0	0	0	0	-	0
CALSITES	Y	0.5	0	0	0	0	-	0
HLUR	Y	0.5	0	0	0	0	-	0
DEED	Y	0.5	0	0	0	0	-	0
VCP	Y	0.5	0	0	0	0	-	0
CLEANUP SITES	Y	0.5	0	0	0	**1**	-	**1**
DELISTED CLEANUP	Y	0.5	0	0	0	0	-	0
DELISTED COUNTY	Y	0.25	0	0	**2**	-	-	**2**
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED INDIAN LST	Y	0.5	0	0	0	0	-	0
DELISTED INDIAN UST	Y	0.25	0	0	0	-	-	0
County								
LOP RIVERSIDE	Y	0.5	0	0	**2**	**2**	-	**4**
UST RIVERSIDE	Y	0.25	0	0	**1**	-	-	**1**
Additional Environmental Records								
Federal								
PFAS GHG	Y	0.5	0	0	0	0	-	0
OSC RESPONSE	Y	0.125	0	0	-	-	-	0
FINDS/FRS	Y	PO	0	-	-	-	-	0
TRIS	Y	PO	0	-	-	-	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS FED SITES	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
ERNS PFAS	Y	0.5	0	0	0	0	-	0
PFAS NPDES	Y	0.5	0	0	0	0	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS TSCA	Y	0.5	0	0	0	0	-	0
PFAS E-MANIFEST	Y	0.5	0	0	0	0	-	0
PFAS IND	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
FUDS MRS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
LM SITES	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
AFS	Y	PO	0	-	-	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0
PCBT	Y	0.5	0	0	0	0	-	0
PCB	Y	0.5	0	0	0	0	-	0
State								
PFAS SAMPLING	Y	0.5	0	0	***1***	0	-	***1***
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DRYC GRANT	Y	0.25	0	0	0	-	-	0
PFAS GT CLEANUPS	Y	0.5	0	0	0	0	-	0
PFAS GW	Y	0.5	0	0	***2***	0	-	***2***
PFAS INVEST	Y	0.5	0	0	0	0	-	0
HWSS CLEANUP	Y	0.5	0	0	0	0	-	0
TOXIC PITS	Y	1	0	0	0	0	0	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
DTSC HWF	Y	0.5	0	0	0	0	-	0
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	0	0	**1**	**1**
CHMIRS	Y	PO	0	-	-	-	-	0
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	0	-	-	-	-	0
HAZ GEN	Y	PO	0	-	-	-	-	0
HAZ TSD	Y	0.5	0	0	0	0	-	0
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HW TRANSPORT	Y	0.125	0	0	-	-	-	0
WASTE TIRE	Y	PO	0	-	-	-	-	0
MEDICAL WASTE	Y	0.25	0	0	0	-	-	0
HIST CORTESE	Y	0.5	0	0	0	0	-	0
CDO/CAO	Y	0.5	0	0	0	0	-	0
CERS HAZ	Y	0.125	0	0	-	-	-	0
DELISTED HAZ	Y	0.5	0	0	0	**2**	-	**2**
GEOTRACKER	Y	0.125	0	0	-	-	-	0
MINE	Y	1	0	0	**1**	0	0	**1**
LIEN	Y	PO	0	-	-	-	-	0
WASTE DISCHG	Y	0.25	0	0	0	-	-	0
EMISSIONS	Y	0.25	0	0	0	-	-	0
CDL	Y	0.125	0	**2**	-	-	-	**2**
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
HWG RIVERSIDE	Y	0.125	0	0	-	-	-	0
HZH RIVERSIDE	Y	0.125	0	0	-	-	-	0
MED WST RIVERSIDE	Y	0.25	0	0	**1**	-	-	**1**
RMP RIVERSIDE	Y	PO	0	-	-	-	-	0
Total:			0	**2**	**22**	**15**	**2**	**41**

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	CDL		25908 SHERMAN RD ROMOLAND CA 92380	SE	0.11 / 588.84	1	26
1	CDL		25908 SHERMAN ROMOLAND CA 92380	SE	0.11 / 588.84	1	26
2	MINE	ROMALAND	CA	NW	0.13 / 668.59	-2	26
3	RCRA NON GEN	J.N GREASE	25685 SHERMAN RD MENIFEE CA 92585 ***EPA Handler ID:*** CAC003024896	N	0.14 / 733.21	0	26
4	LOP RIVERSIDE	Cal Trans	27644 Hwy 74 Romoland CA ***Site ID*** **|** ***Status Desc:*** 89341 | CLOSED/ACTION COMPLETED	ENE	0.17 / 896.69	8	28
5	LUST	CAL TRANS	2764 HIGHWAY 74 ROMOLAND CA 92580 ***Global ID*** **|** ***Status:*** T0606500136 |	ENE	0.17 / 916.37	8	28
6	RCRA NON GEN	TOP PROMOTIONAL PRODUCTS	1794 ILLINOIS AVE PERRIS CA 92571 ***EPA Handler ID:*** CAL000374619	WNW	0.19 / 977.16	-4	31
7	PFAS GW		CA	SSW	0.19 / 1,001.21	-2	32
7	PFAS SAMPLING	WELL 89 (DESALTER SUPPLY) - INACTIVE	PERRIS CA	SSW	0.19 / 1,001.21	-2	40
8	CERS TANK	Romo Gas Mart	27682 HIGHWAY 74 ROMOLAND CA 92585 ***Site ID:*** 410153	ENE	0.20 / 1,040.53	9	46
8	UST	Romo Gas Mart	27682 Highway 74 Romoland CA 92585 ***Tank ID No.*** **|** ***Tank Status*** **|** ***Tank Closure Date:*** 3 | Confirmed/Updated Information | , 1 | Confirmed/Updated Information | , 2 | Confirmed/Updated Information |	ENE	0.20 / 1,040.53	9	65
8	UST SWEEPS	ROMO GAS MART	27682 HIGHWAY 74 ROMOLAND CA ***C C*** **|** ***Status:*** A33-000-31978 | ACTIVE ***Tank ID:*** 000002, 000003, 000001	ENE	0.20 / 1,040.53	9	67

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
8	UST RIVERSIDE	Romo Gas Mart	27682 Hwy 74 Romoland CA 92585 ***No of Tanks:*** 3	ENE	0.20 / 1,040.53	9	68
9	LOP RIVERSIDE	Chaney's Automotive	27411 Ethanac Rd Romoland CA ***Site ID*** **|** ***Status Desc:*** 93620 | CLOSED/ACTION COMPLETED	S	0.20 / 1,043.86	-1	68
9	DELISTED COUNTY	Chaney's Auto Repair	27411 Ethanac Rd Romoland CA 92585	S	0.20 / 1,043.86	-1	68
9	LUST	CHANEY'S AUTOMOTIVE	27411 ETHANAC ROAD ROMOLAND CA 92580 ***Global ID*** **|** ***Status:*** T0606500332 |	S	0.20 / 1,043.86	-1	68
9	RCRA NON GEN	LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE	27411 ETHANAC RD SUN CITY CA 92585 ***EPA Handler ID:*** CAL000409435	S	0.20 / 1,043.86	-1	71
10	RCRA NON GEN	GENCORP AUTO BODY SHOP	27271 ETHANAC RD MENIFEE CA 92585 ***EPA Handler ID:*** CAL000414411	SW	0.20 / 1,076.64	-3	72
10	RCRA NON GEN	TOP TECH AUTO & SONS	27271 ETHANAC RD STE 103 SUN CITY CA 92585 ***EPA Handler ID:*** CAL000333847	SW	0.20 / 1,076.64	-3	73
11	PFAS GW		CA	SSW	0.21 / 1,099.34	-2	75
12	DELISTED COUNTY	Tire Stop & Recycling	27491 Ethanac Rd Sun City CA 92585	SSE	0.23 / 1,188.88	0	99
13	MED WST RIVERSIDE	Sun City Menifee Dialysis	1702 Illinois Ave Perris CA 92571	W	0.24 / 1,246.64	-6	100
14	RCRA SQG	BUTLER SCALES ZEPEDE	27736 HWY 74 ROMOLAND CA 92585 ***EPA Handler ID:*** CAD981621121	E	0.25 / 1,311.25	11	100
15	RCRA NON GEN	EASTERN MUNICIPAL WATER DISTRICT CALL CENTER	1710 ILLINOIS AVE PERRIS CA 92572 ***EPA Handler ID:*** CAC003257855	WNW	0.25 / 1,314.27	-5	101
16	DELISTED HAZ	North County Sand & Gravel	26227 SHERMAN RD ROMOLAND CA 92585	S	0.33 / 1,747.62	-2	102

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
17	DELISTED HAZ	Perris Yard	26245 DAWSON RD ROMOLAND CA 92585	ESE	0.33 / 1,748.28	7	102
18	LOP RIVERSIDE	Romoland Market	27856 Hwy 74 Romoland CA ***Site ID*** **|** ***Status Desc:*** 92265 | CLOSED/ACTION COMPLETED	E	0.37 / 1,956.80	12	102
18	LUST	ROMOLAND MARKET	27856 HIGHWAY 74 ROMOLAND CA 92380 ***Global ID*** **|** ***Status:*** T0606500088 |	E	0.37 / 1,956.80	12	103
19	LUST	FORWES HOLDINGS	27256 HWY 74 ROMOLAND CA ***Global ID*** **|** ***Status:*** T10000010036 |	NNW	0.38 / 2,019.57	-5	106
20	LDS	SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92380	NW	0.41 / 2,140.81	-8	108
20	LDS	SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92580	NW	0.41 / 2,140.81	-8	110
20	WMUD	SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92380	NW	0.41 / 2,140.81	-8	112
20	WMUD	SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92580	NW	0.41 / 2,140.81	-8	113
21	C&D DEBRIS RECY	DAN COPP CRUSHING CORP - SUN CITY	27050 WATSON RD SUN CITY CA 92585	WNW	0.42 / 2,199.72	-8	114
22	LOP RIVERSIDE	United Parcel Service	25283 Sherman Way Romoland CA ***Site ID*** **|** ***Status Desc:*** 91867 | CLOSED/ACTION COMPLETED	N	0.46 / 2,429.16	1	115
23	C&D DEBRIS RECY	ASPHALT AND CONCRETE RECYCLING OF PERRIS	25630 TRUMBLE RD ROMOLAND CA 92585	NNW	0.46 / 2,437.60	-7	115
24	FED BROWNFIELDS	Former Lakeside Chevrolet	25351 Trumble Road ROMOLAND CA 92585-9664 ***Property ID:*** 105141	NNW	0.47 / 2,496.48	-8	115
24	CLEANUP SITES	TRUMBLE RD	25351 TRUMBLE RD MENIFEE CA 92585 ***Global ID:*** T10000009963	NNW	0.47 / 2,496.48	-8	118

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
25	LUST	UNITED PARCEL SERVICE	25283 SHERMAN RD ROMOLAND CA 92380 ***Global ID*** **|** ***Status:*** T0606500219 **|**	N	0.48 / 2,517.06	-3	121
26	SCH	HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585 ***Estor/EPA ID*** **|** ***Cleanup Status:*** 33010072	NO FURTHER ACTION AS OF 3/19/2003	E	0.51 / 2,677.30	16	124
26	ENVIROSTOR	HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585 ***Estor/EPA ID*** **|** ***Cleanup Status:*** 33010072	NO FURTHER ACTION AS OF 3/19/2003	E	0.51 / 2,677.30	16	126

Executive Summary: Summary by Data Source

Standard

Federal

RCRA SQG - RCRA Small Quantity Generators List

A search of the RCRA SQG database, dated Apr 8, 2024 has found that there are 1 RCRA SQG site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
BUTLER SCALES ZEPEDE	27736 HWY 74 ROMOLAND CA 92585 ***EPA Handler ID**: CAD981621121*	E	0.25 / 1,311.25	14

RCRA NON GEN - RCRA Non-Generators

A search of the RCRA NON GEN database, dated Apr 8, 2024 has found that there are 6 RCRA NON GEN site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
J.N GREASE	25685 SHERMAN RD MENIFEE CA 92585 ***EPA Handler ID**: CAC003024896*	N	0.14 / 733.21	3

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
TOP PROMOTIONAL PRODUCTS	1794 ILLINOIS AVE PERRIS CA 92571 ***EPA Handler ID**: CAL000374619*	WNW	0.19 / 977.16	6
LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE	27411 ETHANAC RD SUN CITY CA 92585 ***EPA Handler ID**: CAL000409435*	S	0.20 / 1,043.86	9
TOP TECH AUTO & SONS	27271 ETHANAC RD STE 103 SUN CITY CA 92585 ***EPA Handler ID**: CAL000333847*	SW	0.20 / 1,076.64	10
GENCORP AUTO BODY SHOP	27271 ETHANAC RD MENIFEE CA 92585 ***EPA Handler ID**: CAL000414411*	SW	0.20 / 1,076.64	10
EASTERN MUNICIPAL WATER DISTRICT CALL CENTER	1710 ILLINOIS AVE PERRIS CA 92572 ***EPA Handler ID**: CAC003257855*	WNW	0.25 / 1,314.27	15

FED BROWNFIELDS - The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database

A search of the FED BROWNFIELDS database, dated Feb 7, 2024 has found that there are 1 FED BROWNFIELDS site(s) within approximately 0.50miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Former Lakeside Chevrolet	25351 Trumble Road ROMOLAND CA 92585-9664	NNW	0.47 / 2,496.48	24
	***Property ID**: 105141*			

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Jun 25, 2024 has found that there are 1 ENVIROSTOR site(s) within approximately 1.00miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585	E	0.51 / 2,677.30	26
	***Estor/EPA ID**	**Cleanup Status**: 33010072 | NO FURTHER ACTION AS OF 3/19/2003*		

WMUD - Waste Management Unit Database

A search of the WMUD database, dated Jan 1, 2000 has found that there are 2 WMUD site(s) within approximately 0.50miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92380	NW	0.41 / 2,140.81	20
SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92580	NW	0.41 / 2,140.81	20

C&D DEBRIS RECY - Construction and Demolition Debris Recyclers

A search of the C&D DEBRIS RECY database, dated Jun 20, 2018 has found that there are 2 C&D DEBRIS RECY site(s) within approximately 0.50miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
DAN COPP CRUSHING CORP - SUN CITY	27050 WATSON RD SUN CITY CA 92585	WNW	0.42 / 2,199.72	21
ASPHALT AND CONCRETE RECYCLING OF PERRIS	25630 TRUMBLE RD ROMOLAND CA 92585	NNW	0.46 / 2,437.60	23

LDS - Land Disposal Sites

A search of the LDS database, dated Jul 4, 2024 has found that there are 2 LDS site(s) within approximately 0.50miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92380	NW	0.41 / 2,140.81	20
SOIL TREATMENT, ROMOLAND	27126 WATSON ROAD ROMOLAND CA 92580	NW	0.41 / 2,140.81	20

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Jul 4, 2024 has found that there are 5 LUST site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
CAL TRANS	2764 HIGHWAY 74 ROMOLAND CA 92580 ***Global ID*** **|** ***Status***: *T0606500136* |	ENE	0.17 / 916.37	5
ROMOLAND MARKET	27856 HIGHWAY 74 ROMOLAND CA 92380 ***Global ID*** **|** ***Status***: *T0606500088* |	E	0.37 / 1,956.80	18

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
CHANEY'S AUTOMOTIVE	27411 ETHANAC ROAD ROMOLAND CA 92580 ***Global ID*** **|** ***Status***: *T0606500332* |	S	0.20 / 1,043.86	9
FORWES HOLDINGS	27256 HWY 74 ROMOLAND CA ***Global ID*** **|** ***Status***: *T10000010036* |	NNW	0.38 / 2,019.57	19
UNITED PARCEL SERVICE	25283 SHERMAN RD ROMOLAND CA 92380 ***Global ID*** **|** ***Status***: *T0606500219* |	N	0.48 / 2,517.06	25

UST - Permitted Underground Storage Tank (UST) in GeoTracker

A search of the UST database, dated Jun 11, 2024 has found that there are 1 UST site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Romo Gas Mart	27682 Highway 74 Romoland CA 92585 ***Tank ID No.*** **|** ***Tank Status*** **|** ***Tank Closure Date***: *3 | Confirmed/Updated Information | , 1 | Confirmed/Updated Information | , 2 | Confirmed/Updated Information |*	ENE	0.20 / 1,040.53	8

UST SWEEPS - Statewide Environmental Evaluation and Planning System

A search of the UST SWEEPS database, dated Oct 1, 1994 has found that there are 1 UST SWEEPS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
ROMO GAS MART	27682 HIGHWAY 74 ROMOLAND CA	ENE	0.20 / 1,040.53	8
	C C **|** ***Status****: A33-000-31978 | ACTIVE* ***Tank ID****: 000002, 000003, 000001*			

CERS TANK - California Environmental Reporting System (CERS) Tanks

A search of the CERS TANK database, dated Jul 25, 2024 has found that there are 1 CERS TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Romo Gas Mart	27682 HIGHWAY 74 ROMOLAND CA 92585	ENE	0.20 / 1,040.53	8
	Site ID*: 410153*			

CLEANUP SITES - GeoTracker Cleanup Program Sites

A search of the CLEANUP SITES database, dated Jul 4, 2024 has found that there are 1 CLEANUP SITES site(s) within approximately 0.50miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
TRUMBLE RD	25351 TRUMBLE RD MENIFEE CA 92585	NNW	0.47 / 2,496.48	24
	Global ID*: T10000009963*			

DELISTED COUNTY - Delisted County Records

A search of the DELISTED COUNTY database, dated Jul 24, 2024 has found that there are 2 DELISTED COUNTY site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Tire Stop & Recycling	27491 Ethanac Rd Sun City CA 92585	SSE	0.23 / 1,188.88	12

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Chaney's Auto Repair	27411 Ethanac Rd Romoland CA 92585	S	0.20 / 1,043.86	9

County

LOP RIVERSIDE - Riverside County - Local Oversight Program List

A search of the LOP RIVERSIDE database, dated Feb 6, 2024 has found that there are 4 LOP RIVERSIDE site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Cal Trans	27644 Hwy 74 Romoland CA	ENE	0.17 / 896.69	4

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	Site ID **|** ***Status Desc****: 89341* | *CLOSED/ACTION COMPLETED*			
Romoland Market	27856 Hwy 74 Romoland CA	E	0.37 / 1,956.80	18
	Site ID **|** ***Status Desc****: 92265* | *CLOSED/ACTION COMPLETED*			
United Parcel Service	25283 Sherman Way Romoland CA	N	0.46 / 2,429.16	22
	Site ID **|** ***Status Desc****: 91867* | *CLOSED/ACTION COMPLETED*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Chaney's Automotive	27411 Ethanac Rd Romoland CA	S	0.20 / 1,043.86	9
	Site ID **|** ***Status Desc****: 93620* | *CLOSED/ACTION COMPLETED*			

UST RIVERSIDE - Riverside County - Underground Storage Tanks List

A search of the UST RIVERSIDE database, dated Feb 6, 2024 has found that there are 1 UST RIVERSIDE site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Romo Gas Mart	27682 Hwy 74 Romoland CA 92585	ENE	0.20 / 1,040.53	8
	No of Tanks*: 3*			

Non Standard

State

PFAS GW - PFOA/PFOS Groundwater

A search of the PFAS GW database, dated Jun 23, 2024 has found that there are 2 PFAS GW site(s) within approximately 0.50miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
	CA	SSW	0.19 / 1,001.21	7
	CA	SSW	0.21 / 1,099.34	11

SCH - School Property Evaluation Program Sites

A search of the SCH database, dated Jun 25, 2024 has found that there are 1 SCH site(s) within approximately 1.00miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585	E	0.51 / 2,677.30	26
	Estor/EPA ID **|** ***Cleanup Status****: 33010072	NO FURTHER ACTION AS OF 3/19/2003*		

DELISTED HAZ - Delisted Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the DELISTED HAZ database, dated Nov 29, 2018 has found that there are 2 DELISTED HAZ site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Perris Yard	26245 DAWSON RD ROMOLAND CA 92585	ESE	0.33 / 1,748.28	17

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
North County Sand & Gravel	26227 SHERMAN RD ROMOLAND CA 92585	S	0.33 / 1,747.62	16

MINE - Mines Listing

A search of the MINE database, dated Jun 16, 2023 has found that there are 1 MINE site(s) within approximately 1.00miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ROMALAND	CA	NW	0.13 / 668.59	2

CDL - Clandestine Drug Lab Sites

A search of the CDL database, dated Jan 19, 2021 has found that there are 2 CDL site(s) within approximately 0.12miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	25908 SHERMAN ROMOLAND CA 92380	SE	0.11 / 588.84	1
	25908 SHERMAN RD ROMOLAND CA 92380	SE	0.11 / 588.84	1

PFAS SAMPLING - PFAS Sampling Locations

A search of the PFAS SAMPLING database, dated Jun 28, 2024 has found that there are 1 PFAS SAMPLING site(s) within approximately 0.50miles of the project property.

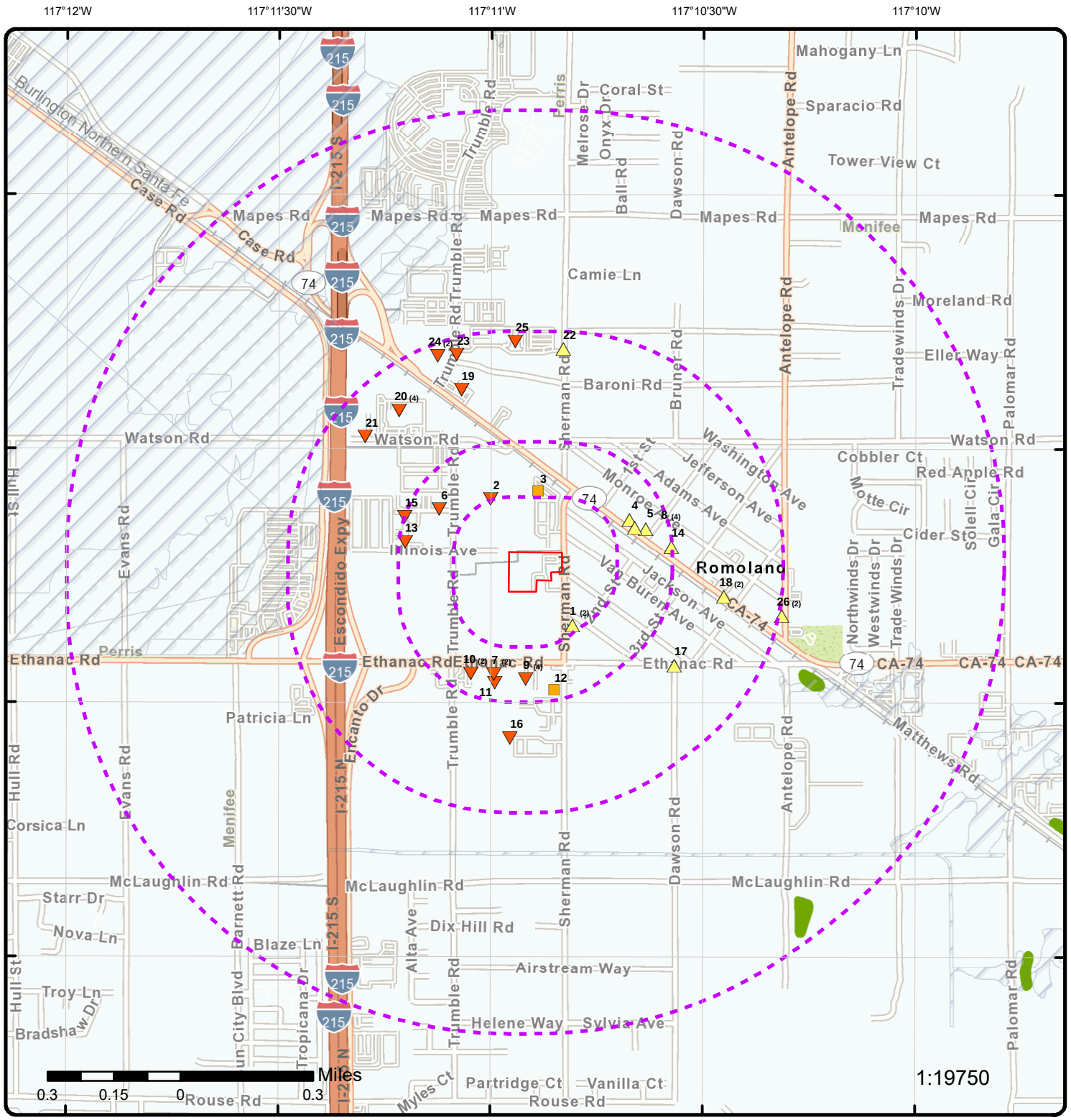
Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
WELL 89 (DESALTER SUPPLY) - INACTIVE	PERRIS CA	SSW	0.19 / 1,001.21	7

County

MED WST RIVERSIDE - Riverside County - Medical Waste Facilities

A search of the MED WST RIVERSIDE database, dated Jan 12, 2023 has found that there are 1 MED WST RIVERSIDE site(s) within approximately 0.25miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Sun City Menifee Dialysis	1702 Illinois Ave Perris CA 92571	W	0.24 / 1,246.64	13



Map: 1.0 Mile Radius

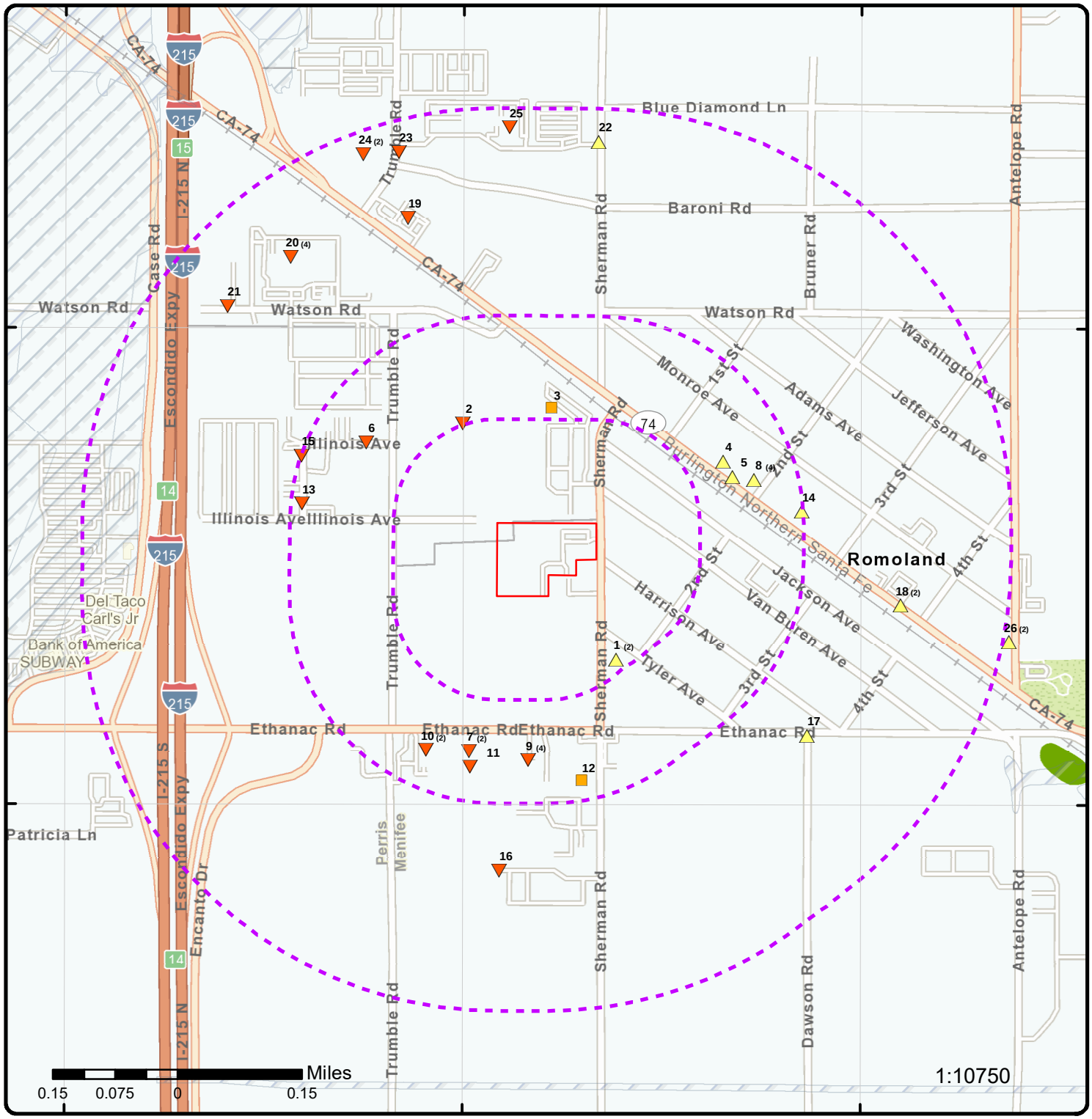
Order Number: 24091300824

Address: 25775 Sherman Road, Perris, CA

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

© ERIS Information Inc.



Map: 0.5 Mile Radius

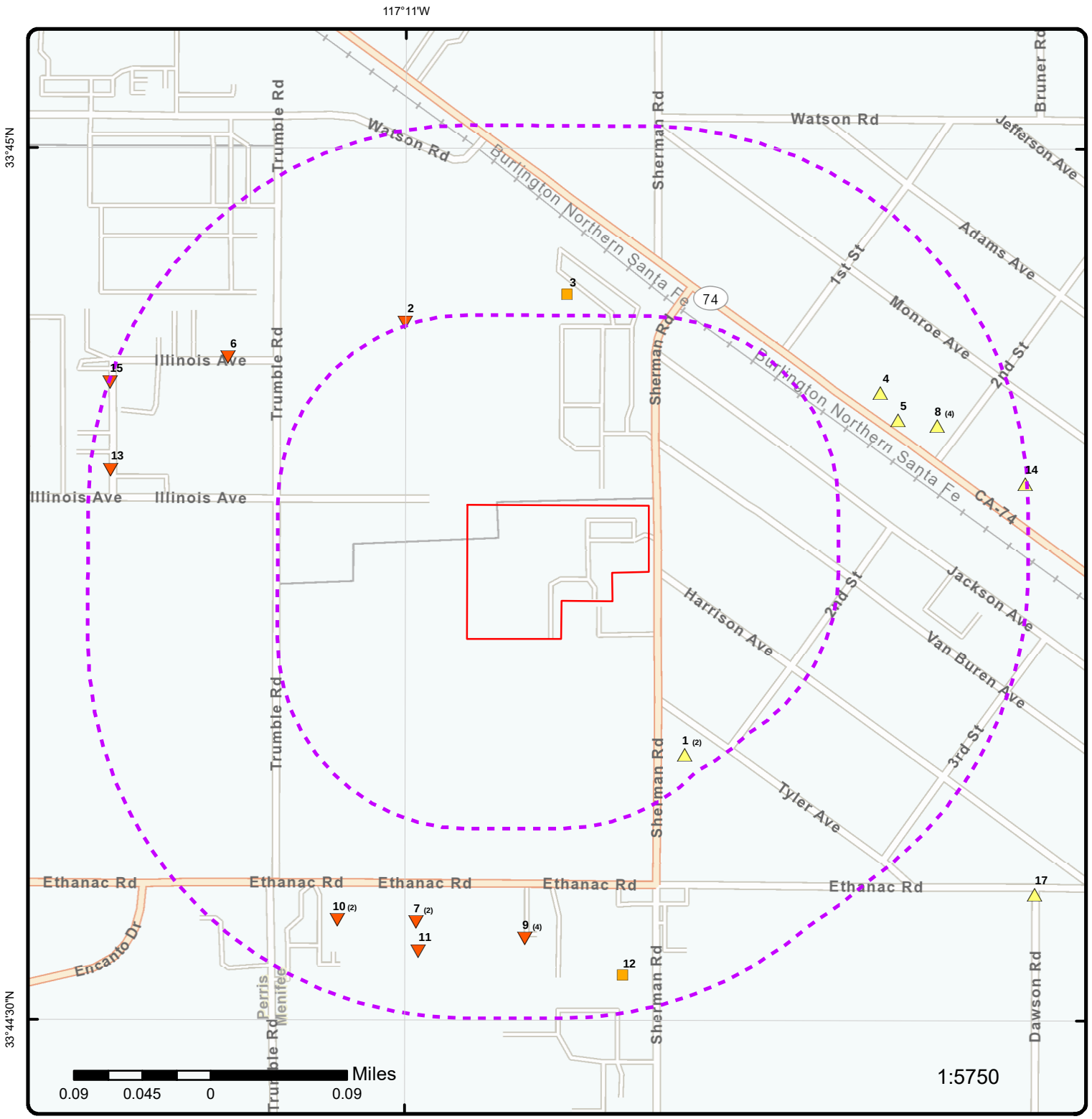
Order Number: 24091300824

Address: 25775 Sherman Road, Perris, CA

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

© ERIS Information Inc.



Map: 0.25 Mile Radius

Order Number: 24091300824

Address: 25775 Sherman Road, Perris, CA

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

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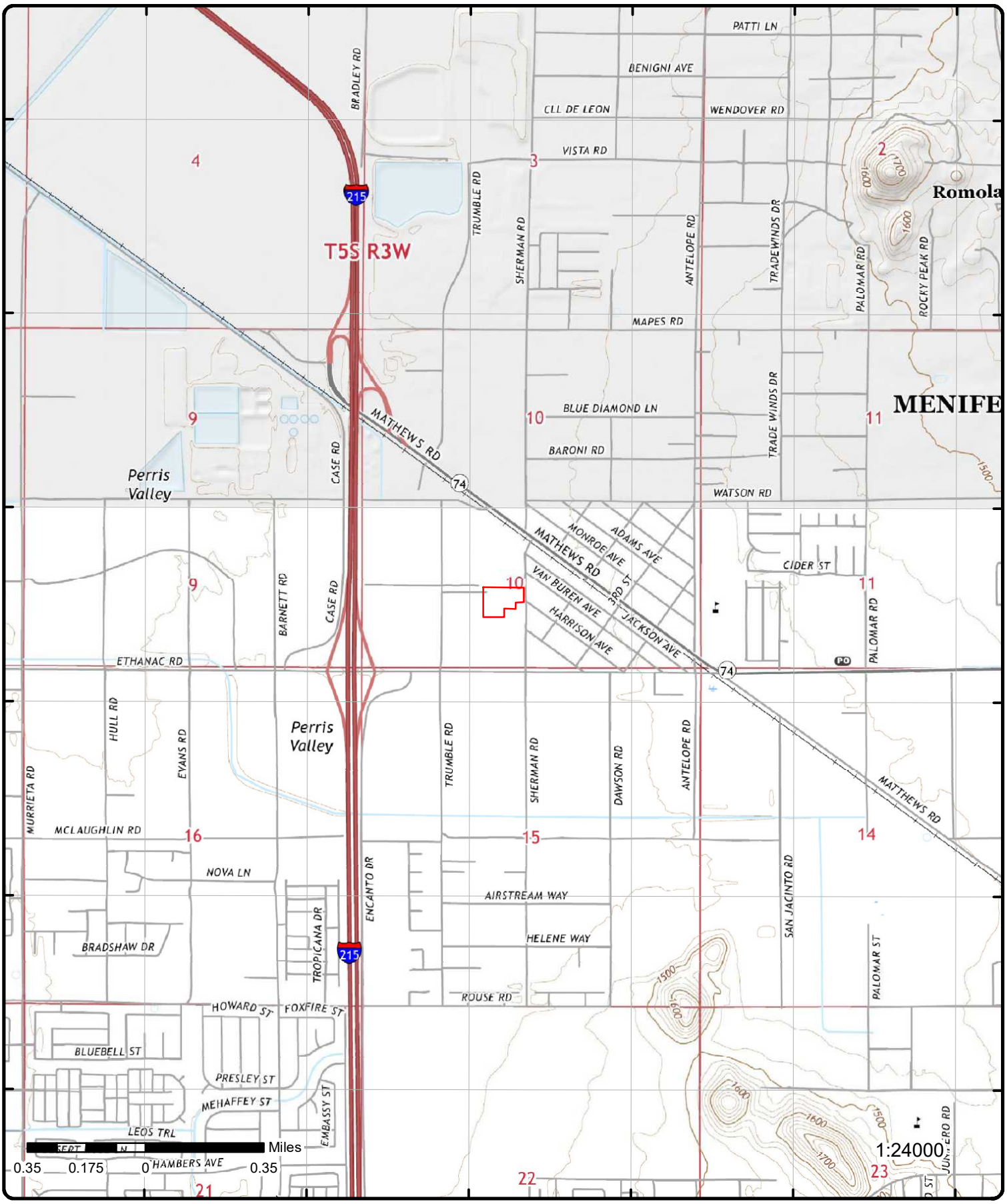
Aerial **Year: 2022**

Order Number: 24091300824

Address: 25775 Sherman Road, Perris, CA

Source: ESRI World Imagery

© ERIS Information Inc.



Topographic Map

Year: 2022

Order Number: 24091300824

Address: 25775 Sherman Road, CA

Quadrangle(s): Perris CA, Romoland CA

Source: USGS Topographic Map

© ERIS Information Inc.

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of2	SE	0.11 / 588.84	1,433.48 / 1	25908 SHERMAN RD ROMOLAND CA 92380	CDL

Clue: 1999-09-110
Date: 9/17/1999
County: RIVERSIDE
Lab Type: L
Lab Type Description: Illegal Drug Lab - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	2 of2	SE	0.11 / 588.84	1,433.48 / 1	25908 SHERMAN ROMOLAND CA 92380	CDL

Clue: 1998-04-011
Date: 4/3/1998
County: RIVERSIDE
Lab Type: L
Lab Type Description: Illegal Drug Lab - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	1 of1	NW	0.13 / 668.59	1,430.45 / -2	ROMALAND CA	MINE

Mine ID:	91-33-0087	**Las Code:**	33.00
Mine Status:	CLOSED - NEVER OPERATED	**Rp No:**	
Primary Product:	Sand and Gravel	**Report Type:**	2
Other Products:		**Owner City:**	HAMILTON
Report Year:	2002	**Owner Country:**	
Acres Disturbed:		**Owner State:**	MT
Reclamation Status:	RECLAMATION NOT STARTED	**Owner Street:**	560 HAYES CIRCLE ROAD
Permit Acres:	13.00	**Owner Zip:**	59840
Finan Assur Mech:		**Operator City:**	SAN JACINTO
Fin Assur Cost Est:		**Operator Country:**	
Primary Product 1:		**Operator State:**	CA
Primary Prod Label:		**Operator Street:**	1871 WARREN ROAD
Facility City:		**Operator Zip:**	92582
Facility State:		**Shape:**	
Facility Zip:		**X:**	-117.18333766988567
Facility County:		**Y:**	33.748333753397795
Face Amount:		**Last Name:**	County of Riverside
Mech Total:			
Facility Address:			
Permit No:	190		
Operation Type:	OPEN PIT		
Operator:	ASPHALT & CONCRETE RECYCLING, INC.		
Owner:	GERMANN		
Lead Agency:			
Document URL:	https://mods.conservation.ca.gov/documents?mineid=91330087		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of1	N	0.14 / 733.21	1,432.52 / 0	J.N GREASE 25685 SHERMAN RD	RCRA NON GEN

EPA Handler ID: CAC003024896
Gen Status Universe: No Report
Contact Name: JOSE NAVARRO
Contact Address: 25685 SHERMAN RD , , MENIFEE , CA, 92585 ,
Contact Phone No and Ext: 909-772-5243
Contact Email: CNAVARRO.JNGREASE@GMAIL.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20190719
Location Latitude: 33.747903
Location Longitude: -117.180497

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20190719
Handler Name: J.N GREASE
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: J.N GREASE
Date Became Current:
Date Ended Current:
Phone: 909-772-5243
Source Type: Implementer
Street No:
Street 1: 25685 SHERMAN RD
Street 2:
City: MENIFEE
State: CA
Country:
Zip Code: 92585

Owner/Operator Ind: Current Operator
Type: Other
Name: JOSE NAVARRO
Date Became Current:
Date Ended Current:
Phone: 909-772-5243
Street No:
Street 1: 25685 SHERMAN RD
Street 2:
City: MENIFEE
State: CA
Country:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Source Type: Implementer **Zip Code:** 92585

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4 | **1 of1** | **ENE** | **0.17 / 896.69** | **1,440.53 / 8** | **Cal Trans, 27644 Hwy 74, Romoland CA** | **LOP RIVERSIDE**

Site ID: 89341
Status Code: 9
Status Desc: CLOSED/ACTION COMPLETED
Case Type Code: S
Case Type Desc: SOIL ONLY IS IMPACTED
Closed Code: Y
Closed Desc: CLOSED SITE
Employee: Brown

---

5 | **1 of1** | **ENE** | **0.17 / 916.37** | **1,440.44 / 8** | **CAL TRANS, 2764 HIGHWAY 74, ROMOLAND CA 92580** | **LUST**

Global ID: T0606500136
Site Facility Type: LUST CLEANUP SITE
Site Fac Type (SRCH): LUST CLEANUP SITE
Status:
Status (SRCH): COMPLETED - CASE CLOSED
Status (DL): Completed - Case Closed
Status Date (DL): 5/31/1994
Cleanup Status: COMPLETED - CASE CLOSED
Case Type (DL): LUST Cleanup Site
Oil Field (SRCH):
Oil Field Oper (SRCH):
Census Tract (SRCH): 6065042730
Latitude (DL): 33.7474058166435
Longitude (DL): -117.177692060407
RWQCB Region (DL): SANTA ANA RWQCB (REGION 8)
Site Facility Name (SRCH): CAL TRANS
Address (SRCH): 2764 HIGHWAY 74
City (SRCH): ROMOLAND
Zip (SRCH): 92580
County (SRCH): RIVERSIDE
Street No (DL): 2764
Street Name (DL): HIGHWAY 74
City (DL): ROMOLAND
Zip (DL): 92580
County (DL): Riverside
State (DL): CA
Business Name (DL): CAL TRANS
Site Facility Name: CAL TRANS
Address : 2764 HIGHWAY 74
City : ROMOLAND
Zip : 92580
County : RIVERSIDE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

CUF Case: NO
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: RIV
Local Agency: RIVERSIDE COUNTY LOP
RB Case No: 083301251T
Local Case No: 89341
File Location: Local Agency Warehouse
Potential COC: Gasoline
Potential Media of Concern: Soil
Begin Date: 4/19/1989
How Discovered: Other Means
How Discovered Description:
Stop Method: Close and Remove Tank
Stop Description:
Calwater Watershed Name: San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name: San Jacinto (8-005)
Disadvantaged Community:
CalEnvScreen Score:
Coordinate Source: Google Map Move
Discharge Cause: Unknown

Discharge Source: Tank
EPA Region: 9
Leak Reported Dt: 1989-04-19 00:00:00
Military DoD Site: No
No Further Action Dt: 1994-05-31 00:00:00
Qty Rlsd Gallons:
Facility Project Sub Type:
Calenviroscreen 3 Score: 66-70%
Calenviroscreen 4 Score: 55-60%
Site History:

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type: Local Agency Caseworker - Primary Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email:
Phone No: 9519558980

GeoTracker Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 5/31/1994

Status: Open - Site Assessment
Status Date: 7/27/1989

Status: Open - Case Begin Date
Status Date: 4/19/1989

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name: CAL TRANS
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Address: 2764 HIGHWAY 74
City: ROMOLAND
Zip: 92580
County: RIVERSIDE
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500136
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 5/31/1994
Project Status:
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500136&tabname=regulatoryhistory
Potential COC: GASOLINE
Potential Media of Concern: SOIL
File Location: LOCAL AGENCY WAREHOUSE
User Defined Beneficial Use:
Designated Beneficial Use: MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
DWR GW Sub Basin: San Jacinto (8-005)
Calwater Watershed Name: San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management: NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use: UNKNOWN
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 89341
CASE MANAGER: Riverside County LOP
SANTA ANA RWQCB (REGION 8) - CASE #: 083301251T
CUF Claim No:
CUF Priority Assig:
CUF Amount Paid:
WDR Place Type:
WDR File No:
WDR Order No:
Project Oversight Agencies:
Facility Type:

Composting Method:
Grndwtr Monitoring Frequency:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Site History:

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 5/31/1994

Status: Open - Site Assessment
Date : 7/27/1989

Status: Open - Case Begin Date
Date : 4/19/1989

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter
Action Date: 5/31/1994
Received Issue Date: 5/31/1994
Doc Link:
Title Description Comments:

LETTER WAS ISSUED BY THE CRDEH. ALSO, THE DIRECTIVE LETTER & THE URR WERE DATED 5/26/89 & 4/19/89, RESPECTIVELY.

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter - #Riv Co Closure
Action Date: 5/31/1994
Received Issue Date: 5/31/1994
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500136&enforcement_id=6001518&temptable=ENFORCEMENT
Title Description Comments:

Riv Co Site Closure

Action Type: Other Regulatory Actions
Action: File review - #RCDEH Upload Site File 4/29/2015
Action Date: 5/30/1994
Received Issue Date: 5/30/1994
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500136&enforcement_id=6048551&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 4/29/2015

Action Type: Leak Action
Action: Leak Stopped
Action Date: 5/12/1989
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported
Action Date: 4/19/1989
Received Issue Date:
Doc Link:
Title Description Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action Type: Leak Action
Action: Leak Discovery
Action Date: 4/19/1989
Received Issue Date:
Doc Link:
Title Description Comments:

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents **Document Date:** 5/31/1994
Type: CLOSURE/NO FURTHER ACTION LETTER **Submitted:**
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Title: RIV CO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500136&enforcement_id=6001518

Document Type: Site Documents **Document Date:** 5/30/1994
Type: FILE REVIEW **Submitted:**
Submitted By: LINDA SHURLOW (REGULATOR)
Title: RCDEH UPLOAD SITE FILE 4/29/2015
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500136&enforcement_id=6048551

6	1 of1	WNW	0.19 / 977.16	1,428.49 / -4	TOP PROMOTIONAL PRODUCTS 1794 ILLINOIS AVE PERRIS CA 92571	RCRA NON GEN

EPA Handler ID: CAL000374619
Gen Status Universe: No Report
Contact Name: ANDREW A LAWMAN
Contact Address: 1794 ILLINOIS AVE , , PERRIS , CA, 92571 ,
Contact Phone No and Ext: 951-916-4025
Contact Email: ALAWMAN@TOPUSA.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20120517
Location Latitude: 33.747994
Location Longitude: -117.185288

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20120517
Handler Name:	TOP PROMOTIONAL PRODUCTS
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	1794 ILLINOIS AVE
Name:	ANDREW A LAWMAN	***Street 2:***	
Date Became Current:		***City:***	PERRIS
Date Ended Current:		***State:***	CA
Phone:	951-916-4025	***Country:***	
Source Type:	Implementer	***Zip Code:***	92571
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	1794 ILLINOIS AVE
Name:	PIA WENDEL	***Street 2:***	
Date Became Current:		***City:***	PERRIS
Date Ended Current:		***State:***	CA
Phone:	614-440-0282	***Country:***	
Source Type:	Implementer	***Zip Code:***	92571-0000

7	*1 of2*	***SSW***	***0.19 / 1,001.21***	***1,430.48 / -2***	***CA***	***PFAS GW***

Well ID:	CA3310009_078_078	***SRS Latitude:***	33.7426
Gm Dataset Name:	DDW	***SRS Longitude:***	-117.1832
Gm Data Source:	DDW	***Latitude:***	33.7426
Gm Well Category:	Municipal	***Longitude:***	-117.1832
SRS Datum:			
Gm Altwell Id1:	3310009-078		
Gm Altwell Id2:			
Gm Altwell Id3:			

Well Details

Gm Cas No:		***SRC Chemical:***	2816
Gm Result:	1.8	***SRC Result:***	
Gm Result Modifier:	<	***SRC Result Modifie:***	Y
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	HFPA-DA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	EPA 533
Gm Well Depth Ft:		***SRC Well Depth Ft:***	
Gm Chemical Name:	2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid (HFPO-DA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2801
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFBSA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluorobutane sulfonic acid (PFBS)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2826
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFEESA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2805
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFOS	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluorooctane sulfonate (PFOS)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2824
Gm Result:	2.2	**SRC Result:**	2.2

Gm Result Modifier:	=	**SRC Result Modifie:**	N
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFPA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluoropentanoic acid (PFPeA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2812
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFUNDCA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluoroundecanoic acid (PFUnDA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2803
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHXSA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluorohexanesulfonic acid (PFHxS)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2807
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L

Gm Chemical Vvl:	PFNDCA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluorodecanoic acid (PFDA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2819
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFBTA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluorobutyric acid (PFBA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2828
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFPES	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533
Gm Well Depth Ft:		**SRC Well Depth Ft:**	
Gm Chemical Name:	Perfluoropentane sulfonoic acid (PFPeS)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		**SRC Chemical:**	2808
Gm Result:	1.8	**SRC Result:**	
Gm Result Modifier:	<	**SRC Result Modifie:**	Y
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFDOA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	EPA 533

Gm Well Depth Ft:		***SRC Well Depth Ft:***	
Gm Chemical Name:	Perfluorododecanoic acid (PFDoDA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		***SRC Chemical:***	2809
Gm Result:	1.8	***SRC Result:***	1.8
Gm Result Modifier:	=	***SRC Result Modifie:***	N
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFHA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	EPA 533
Gm Well Depth Ft:		***SRC Well Depth Ft:***	
Gm Chemical Name:	Perfluorohexanoic acid (PFHxA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		***SRC Chemical:***	2823
Gm Result:	1.8	***SRC Result:***	
Gm Result Modifier:	<	***SRC Result Modifie:***	Y
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFMPA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	EPA 533
Gm Well Depth Ft:		***SRC Well Depth Ft:***	
Gm Chemical Name:	Perfluoro-3-methoxypropanoic acid (PFMPA)		
Gm Samp Collection Date:	08/24/2023		
Gm Screen Top Depth Ft:			
Gm Screen Bottom Depth Ft:			
SRC Samp Collection Date:	08/24/2023		
SRC Samp Collection Time:	08:45:00		
SRC Screen Top Depth Ft:			
SRC Screen Bottom Depth Ft:			
SRC Lab Note:	E.S. BABCOCK & SONS		
SRC Analysis Date:	09/04/2023		
SRC Well Category:			

Well Details

Gm Cas No:		***SRC Chemical:***	2804
Gm Result:	1.8	***SRC Result:***	
Gm Result Modifier:	<	***SRC Result Modifie:***	Y
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFNA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	EPA 533
Gm Well Depth Ft:		***SRC Well Depth Ft:***	
Gm Chemical Name:	Perfluorononanoic acid (PFNA)		

Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No: ***SRC Chemical:*** 2815
Gm Result: 1.8 ***SRC Result:***
Gm Result Modifier: < ***SRC Result Modifie:*** Y
Gm Chemical Units: NG/L ***Src Chemical Units:*** NG/L
Gm Chemical Vvl: ADONA ***SRC Report Limit:*** 1.8
Gm Reporting Limit: 1.8 ***SRC Analytic Meth:*** EPA 533
Gm Well Depth Ft: ***SRC Well Depth Ft:***
Gm Chemical Name: 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No: ***SRC Chemical:*** 2825
Gm Result: 1.8 ***SRC Result:***
Gm Result Modifier: < ***SRC Result Modifie:*** Y
Gm Chemical Units: NG/L ***Src Chemical Units:*** NG/L
Gm Chemical Vvl: PFMBA ***SRC Report Limit:*** 1.8
Gm Reporting Limit: 1.8 ***SRC Analytic Meth:*** EPA 533
Gm Well Depth Ft: ***SRC Well Depth Ft:***
Gm Chemical Name: Perfluoro-4-methoxybutanoic acid (PFMBA)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No: ***SRC Chemical:*** 2829
Gm Result: 1.8 ***SRC Result:***
Gm Result Modifier: < ***SRC Result Modifie:*** Y
Gm Chemical Units: NG/L ***Src Chemical Units:*** NG/L
Gm Chemical Vvl: PFHPSA ***SRC Report Limit:*** 1.8
Gm Reporting Limit: 1.8 ***SRC Analytic Meth:*** EPA 533
Gm Well Depth Ft: ***SRC Well Depth Ft:***
Gm Chemical Name: Perfluoroheptane sulfonic acid (PFHpS)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:

Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No: ***SRC Chemical:*** 2813
Gm Result: 1.8 ***SRC Result:***
Gm Result Modifier: < ***SRC Result Modifie:*** Y
Gm Chemical Units: NG/L ***Src Chemical Units:*** NG/L
Gm Chemical Vvl: 11ClPF3OUDS ***SRC Report Limit:*** 1.8
Gm Reporting Limit: 1.8 ***SRC Analytic Meth:*** EPA 533
Gm Well Depth Ft: ***SRC Well Depth Ft:***
Gm Chemical Name: 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No: ***SRC Chemical:*** 2827
Gm Result: 1.8 ***SRC Result:***
Gm Result Modifier: < ***SRC Result Modifie:*** Y
Gm Chemical Units: NG/L ***Src Chemical Units:*** NG/L
Gm Chemical Vvl: NFDHA ***SRC Report Limit:*** 1.8
Gm Reporting Limit: 1.8 ***SRC Analytic Meth:*** EPA 533
Gm Well Depth Ft: ***SRC Well Depth Ft:***
Gm Chemical Name: Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No: ***SRC Chemical:*** 2802
Gm Result: 1.8 ***SRC Result:***
Gm Result Modifier: < ***SRC Result Modifie:*** Y
Gm Chemical Units: NG/L ***Src Chemical Units:*** NG/L
Gm Chemical Vvl: PFHPA ***SRC Report Limit:*** 1.8
Gm Reporting Limit: 1.8 ***SRC Analytic Meth:*** EPA 533
Gm Well Depth Ft: ***SRC Well Depth Ft:***
Gm Chemical Name: Perfluoroheptanoic acid (PFHpA)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023

SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No:
Gm Result: 1.8
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: 4:2FTS
Gm Reporting Limit: 1.8
Gm Well Depth Ft:
Gm Chemical Name: 4:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid) (4:2 FTS)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:
SRC Chemical: 2821
SRC Result:
SRC Result Modifie: Y
Src Chemical Units: NG/L
SRC Report Limit: 1.8
SRC Analytic Meth: EPA 533
SRC Well Depth Ft:

Well Details

Gm Cas No:
Gm Result: 1.8
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: 9ClPF3ONS
Gm Reporting Limit: 1.8
Gm Well Depth Ft:
Gm Chemical Name: 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:
SRC Chemical: 2814
SRC Result:
SRC Result Modifie: Y
Src Chemical Units: NG/L
SRC Report Limit: 1.8
SRC Analytic Meth: EPA 533
SRC Well Depth Ft:

Well Details

Gm Cas No:
Gm Result: 4.4
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: 8:2FTS
Gm Reporting Limit: 4.4
Gm Well Depth Ft:
Gm Chemical Name: 8:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid) (8:2 FTS)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Chemical: 2822
SRC Result:
SRC Result Modifie: Y
Src Chemical Units: NG/L
SRC Report Limit: 4.4
SRC Analytic Meth: EPA 533
SRC Well Depth Ft:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:

Well Details

Gm Cas No:
Gm Result: 1.8
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: PFOA
Gm Reporting Limit: 1.8
Gm Well Depth Ft:
Gm Chemical Name: Perfluorooctanoic acid (PFOA)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:
SRC Chemical: 2806
SRC Result:
SRC Result Modifie: Y
Src Chemical Units: NG/L
SRC Report Limit: 1.8
SRC Analytic Meth: EPA 533
SRC Well Depth Ft:

Well Details

Gm Cas No:
Gm Result: 4.4
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: 6:2FTS
Gm Reporting Limit: 4.4
Gm Well Depth Ft:
Gm Chemical Name: 6:2 Fluorotelomer sulfonic acid (1H,1H,2H,2H-Perfluorooctanesulfonic acid) (6:2 FTS)
Gm Samp Collection Date: 08/24/2023
Gm Screen Top Depth Ft:
Gm Screen Bottom Depth Ft:
SRC Samp Collection Date: 08/24/2023
SRC Samp Collection Time: 08:45:00
SRC Screen Top Depth Ft:
SRC Screen Bottom Depth Ft:
SRC Lab Note: E.S. BABCOCK & SONS
SRC Analysis Date: 09/04/2023
SRC Well Category:
SRC Chemical: 2820
SRC Result:
SRC Result Modifie: Y
Src Chemical Units: NG/L
SRC Report Limit: 4.4
SRC Analytic Meth: EPA 533
SRC Well Depth Ft:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
7	2 of2	SSW	0.19 / 1,001.21	1,430.48 / -2	WELL 89 (DESALTER SUPPLY) - INACTIVE PERRIS CA	PFAS SAMPLING

Global ID: W0603310009
Location ID: CA3310009_078_078
Status:
Site Use: Drinking Water Wells
Site Type: DDW Well
Public Water System Name: EASTERN MUNICIPAL WD
Facility Type:
Latitude: 33.7426
Longitude: -117.1832
Field Pt Class: PUBW

PFAS Chemicals

Sample ID:
Matrix: Liquid
Chemical: PFHXSA
Analytical Method Cd:
Lab Notes:
Reporting Limit:
Detection Limit:
QRAA: 0

Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluorohexanesulfonic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFMBA	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluoro-4-methoxybutanoic acid (PFMBA)		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFHPA	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluoroheptanoic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	9ClPF3ONS	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFHA	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	=	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluorohexanoic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			

Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFHPSA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluoroheptanesulfonic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFEESA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFUNDCA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluoroundecanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: NFDHA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFDOA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluorododecanoic acid

Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFNDCA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluorodecanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: 11ClPF3OUDS ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: 4:2FTS ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: 4:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid)
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFPA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: = ***Units:*** NG/L
Value: 2.2 ***Date:*** 8/24/2023
Chemical Name: Perfluoropentanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***

Matrix:	Liquid	**Reporting Limit:**	4.4
Chemical:	6:2FTS	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	4.4	**Date:**	8/24/2023
Chemical Name:	6:2 Fluorotelomer sulfonic acid (1H,1H,2H,2H-Perfluorooctanesulfonic acid)		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	4.4
Chemical:	8:2FTS	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	4.4	**Date:**	8/24/2023
Chemical Name:	8:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid)		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFBA	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluorobutanoic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFPES	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluoropentane sulfonoic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFMPA	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluoro-3-methoxypropanoic acid (PFMPA)		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			

Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:***
Chemical: PFOA ***Detection Limit:***
Analytical Method Cd: ***QRAA:*** 0
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluorooctanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: HFPA-DA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: 2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: ADONA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: 4,8-Dioxa-3H-perfluorononanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:*** 1.8
Chemical: PFNA ***Detection Limit:***
Analytical Method Cd: EPA 533 ***QRAA:***
Qualifier: < ***Units:*** NG/L
Value: 1.8 ***Date:*** 8/24/2023
Chemical Name: Perfluorononanoic acid
Regional Board:
Treated Drinking Water Dt:
Treated Drinking Water Qualifi:
Treated Drinking Water Reporti:
Treatd Drinking Water Sample:
Treated Drinking Water Units:
Treated Drinking Water Value:

Sample ID: ***Lab Notes:***
Matrix: Liquid ***Reporting Limit:***
Chemical: PFOS ***Detection Limit:***
Analytical Method Cd: ***QRAA:*** 0

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluorooctane sulfonic acid (PFOS)		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Sample ID:		**Lab Notes:**	
Matrix:	Liquid	**Reporting Limit:**	1.8
Chemical:	PFBSA	**Detection Limit:**	
Analytical Method Cd:	EPA 533	**QRAA:**	1.8
Qualifier:	<	**Units:**	NG/L
Value:	1.8	**Date:**	8/24/2023
Chemical Name:	Perfluorobutanesulfonic acid		
Regional Board:			
Treated Drinking Water Dt:			
Treated Drinking Water Qualifi:			
Treated Drinking Water Reporti:			
Treatd Drinking Water Sample:			
Treated Drinking Water Units:			
Treated Drinking Water Value:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
8	1 of4	ENE	0.20 / 1,040.53	1,441.56 / 9	Romo Gas Mart 27682 HIGHWAY 74 ROMOLAND CA 92585	CERS TANK

Site ID:	410153
Latitude:	33.747300
Longitude:	-117.177200

Regulated Programs

El ID:	10709704
El Description:	Underground Storage Tank

El ID:	10709704
El Description:	Chemical Storage Facilities

Violations

Violation Date:	03/08/2017	**Violation Source:**	CERS
Violation Program:	UST	**Violation Division:**	Riverside County Department of Env Health
Citation:	23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)		
Violation Notes:			

Returned to compliance on 03/07/2018.

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.

Violations

Violation Date:	03/08/2017	**Violation Source:**	CERS
Violation Program:	UST	**Violation Division:**	Riverside County Department of Env Health
Citation:	23 CCR 16 2666(c) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666(c)		
Violation Notes:			

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the line leak detector (LLD) monitoring single-walled pressurized piping to shut down the pump when a leak is detected or when the LLD fails or is disconnected.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(f)(3) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)(3)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain a list of employees trained by the designated operator on-site or off-site at a readily available location, if approved by the UPA.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(c)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(c)(2)
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure to have at least one facility employee present during operating hours that has been trained in the proper operation and maintenance of the UST system by a designated operator (DO).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2646.1(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2646.1(j)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to submit the annual statistical inventory reconciliation (SIR) Report to the CUPA.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2643(b)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2643(b)(1)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the automatic tank gauging (ATG) system to perform valid monthly 0.2 gallon-per-hour leak tests or generate hard-copy test reports.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2638(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638(d)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to submit the Annual Monitoring System Certification Form to the CUPA within 30 days of completion of the test.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25292(a); 23 CCR 16 2643 - California Health and Safety Code, Chapter 6.7, Section(s) 25292(a); 23 CCR 16 2643
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to outfit the single-walled UST system with a monitoring system capable of detecting unauthorized releases, e.g., automatic tank gauge (ATG) or continuous in-tank leak detection (CITLD).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to perform an annual line integrity test for pressurized double-walled piping that does not utilize fail safe or positive shut down.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the UST.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to retain a copy of the permit to operate at the facility.

Violations

Violation Date: 03/23/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298(c) - California Health and Safety Code, Chapter 6.7, Section(s) 25298(c)
Violation Notes:

Returned to compliance on 03/23/2022.

Violation Description:

Failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(b)(1)(G) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(G)
Violation Notes:

Returned to compliance on 03/13/2023.

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 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.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Notes:

Returned to compliance on 03/13/2023.

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.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to install a line leak detector (LLD).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to have an approved UST Monitoring Plan.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25292.2(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.2(a)
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
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 Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the double-walled interstitial space of the tank to be continuously monitored with an audible and visual alarm.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(i)
Violation Notes:

Returned to compliance on 03/07/2018.

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.).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25290.1(c), 25290.2(c), 25291(a)(2), 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(c), 25290.2(c), 25291(a)(2), 25292(e)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain secondary containment (e.g. failure of secondary containment testing).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the overfill prevention system to meet one of the following 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.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS

Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298 - California Health and Safety Code, Chapter 6.7, Section(s) 25298
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

UST system was abandoned or not properly closed, or failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to test the spill bucket annually.

Violations

Violation Date: 03/07/2018 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298(c) - California Health and Safety Code, Chapter 6.7, Section(s) 25298(c)
Violation Notes:

Returned to compliance on 03/25/2019. Abandoned UST

Violation Description:

Failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2662(c)(1)(B) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2662(c)(1)(B)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to install corrosion protection for USTs and/or failure of the field-installed cathodic protection system to meet the consensus standards.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2638(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638(f)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to properly affix tag/sticker on monitoring equipment being certified, repaired, or replaced.

Violations

Violation Date: 09/26/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298 - California Health and Safety Code, Chapter 6.7, Section(s) 25298
Violation Notes:

Returned to compliance on 03/07/2018. Abandoned UST

Violation Description:

UST system was abandoned or not properly closed, or failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to have at least one employee present during operating hours that has been trained in the proper operation and maintenance of the UST system by a designated operator (DO).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2632, 2634, 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632, 2634, 2712(b)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain monitoring and maintenance records (e.g., alarm logs) and/or maintain records of appropriate follow-up actions.

Violations

Violation Date: 03/30/2020 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298(c) - California Health and Safety Code, Chapter 6.7, Section(s) 25298(c)
Violation Notes:

Returned to compliance on 03/23/2022.

Violation Description:

Failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(a)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to notify the CUPA of the designated operator (DO) identification and/or change of the DO within 30 days.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to comply with one or more of the following:

Failure to install or maintain a liquid-tight spill bucket.

Have a minimum capacity of five gallons.

Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container.

Be resistant to galvanic corrosion.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to submit or update a plot plan.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(f)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to implement the corrections specified in the inspection report within 30 calendar days of receiving an inspection report from either the CUPA or special inspector.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure to operate the UST system to prevent unauthorized releases including leaks, spills, and/or overfills.

Violations

Violation Date: 11/17/2021 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(b)(1)(G) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(G)
Violation Notes:

Returned to compliance on 03/23/2022.

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 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.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to operate the UST system to prevent unauthorized releases including leaks, spills, and/or overfills.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(h)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to have an approved UST Response Plan.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to have a UST Response Plan available on site.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Notes:

Returned to compliance on 03/07/2018. Abandoned UST's

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(a)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of leak detection equipment to be located such that equipment is capable of detecting a leak at the earliest possible opportunity.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2630(d), 2643(f), 2644.1(a)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2630 (d), 2643(f), 2644.1(a)(2)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to demonstrate to the CUPA that the equipment and methods used to monitor the UST system are certified by an independent third-party as complying with the standards set forth in 23 CCR 2643(f).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2637(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637(e)

Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to submit a copy of the secondary containment test results to the CUPA within 30 days after the test.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(c) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(c)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to comply with one or more of the following designated operator (DO) monthly inspection 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 properly trained.

Violations

Violation Date: 03/08/2021 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298(c) - California Health and Safety Code, Chapter 6.7, Section(s) 25298(c)
Violation Notes:

Returned to compliance on 03/23/2022.

Violation Description:

Failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2715(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(e)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain a copy of the designated operator monthly inspections for the last 12 months on-site or off-site at a readily available location, if approved by the UPA.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to conduct secondary containment testing, or one or more of the following requirements:
Perform the test within six months of installation and every 36 months thereafter.Use a procedure that demonstrates the system works as well as at installation.Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.Performed by a certified service technician or a licensed tank tester.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298(c) - California Health and Safety Code, Chapter 6.7, Section(s) 25298(c)
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure to comply with all permanent closure requirements.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure to obtain a valid permit to operate from the UPA including but not limited to unpaid permit fees.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(a)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain secondarily contained piping to allow liquid to flow into the sump in the event of a leak (i.e., failure to remove test boot).

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the leak detection equipment to have an audible and visual alarm as required.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2631(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2631(d)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of primary or integral secondary containment to be approved for use by an independent testing organization or failure of non integral secondary containment to be designed and constructed to an engineering specification approved by a registered professional engineer or in accordance with a nationally recognized industry code or engineering standard.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2631.1(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2631.1(b)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to submit and/or maintain documentation regarding positive statement of compatibility for UST system components.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25299(a)(9) - California Health and Safety Code, Chapter 6.7, Section(s) 25299(a)(9)
Violation Notes:

Returned to compliance on 03/07/2018.

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.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to obtain a valid permit to operate from the CUPA.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to have a UST Monitoring Plan available on site.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25293 - California Health and Safety Code, Chapter 6.7, Section(s) 25293
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to maintain UST records of monitoring, testing, repairing, and closure in sufficient detail to enable the CUPA to determine whether the UST systems are in compliance.

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements:Monitor at least hourly.Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g.
Restrict or shut off the flow of product through the piping when a leak is detected.

Violations

Violation Date: 03/13/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Notes:

Returned to compliance on 03/13/2023.

Violation Description:

"Failure to meet one or more of the following requirements:

Install or maintain a liquid-tight spill container.

Have a minimum capacity of five gallons.

Have a functional drain valve or other method for the removal of liquid from the spill container.

Be resistant to galvanic corrosion.

Perform a tightness test at installation, every 12 months thereafter, or within 30 days after a repair to the spill container.

Tested using applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer.

Tested by a certified UST service technician.

Maintain records of spill containment testing for 36 months.

"

Violations

Violation Date: 03/08/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286
Violation Notes:

Returned to compliance on 03/07/2018.

Violation Description:

Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violations

Violation Date: 03/25/2019 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Riverside County Department of Env Health
Citation: HSC 6.7 25298(c) - California Health and Safety Code, Chapter 6.7, Section(s) 25298(c)
Violation Notes:

Returned to compliance on 03/23/2022. Abandoned UST site. Previous AEO held 3/29/18.

Violation Description:

Failure to comply with all permanent closure requirements.

Enforcements

Enf Action Date: 03/29/2018
Enf Action Program: UST
Enf Action Type: AEO - Unified Program
Enf Action Source: CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:

Enf Action Date: 03/13/2023
Enf Action Program: UST
Enf Action Type: AEO - Unified Program
Enf Action Source: CERS
Enf Action Division: Riverside County Department of Env Health
Enf Action Description: Administrative Enforcement Order Based on the Unified Program Statute
Enf Action Notes:

Original Program Enforcement date 9/3/2019. Date above updated to current inspection date as additional violations linked to Enforcement action. OOB facility 2008: UST's not removed Update enforcement action date from 3/23/2022 to 3/13/2023 after last routine inspection.

Evaluations

Eval Date: 03/08/2017
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 03/07/2018
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Romo Gas - Abandoned UST Site; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/08/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Abandoned UST Inspection; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/12/2024
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health

Eval Program: UST
Eval Source: CERS
Eval Notes:

Annual Abandoned UST Inspection; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 11/17/2021
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 03/23/2022
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Abandoned UST; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/30/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Annual Abandoned UST Inspection; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/12/2016
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Tank facility check- Supplemental Posted at Site; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/13/2023
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Abandoned UST; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/25/2019
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Riverside County Department of Env Health

Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 09/26/2017
Violations Found: Yes
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Riverside County Department of Env Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Abandoned UST Site; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 27682 Highway 74
City: Romoland
State: CA
Country:
Zip Code: 92585
Phone:

Affil Type Desc: UST Tank Operator
Entity Name: Carmen Lydia Rojas
Entity Title:
Address: 27682 Highway 74
City: Romoland
State: CA
Country: United States
Zip Code: 92585
Phone: (951) 214-9662

Affil Type Desc: Identification Signer
Entity Name: Wes Wesolowski
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Document Preparer
Entity Name: Wes Wesolowski
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: Carmen Lydia Rojas
Entity Title:
Address: 27682 Highway 74
City: Romoland
State: CA
Country: United States
Zip Code: 92585
Phone: (951) 214-9662

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Affil Type Desc: UST Property Owner Name
Entity Name: Carmen Lydia Rojas
Entity Title:
Address: 27682 Highway 74
City: Romoland
State: CA
Country: United States
Zip Code: 92585
Phone: (951) 214-9662

Affil Type Desc: Parent Corporation
Entity Name: Romo Gas Mart
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: UST Tank Owner
Entity Name: Carmen Lydia Rojas
Entity Title:
Address: 27682 Highway 74
City: Romoland
State: CA
Country: United States
Zip Code: 92585
Phone: (951) 214-9662

Affil Type Desc: Environmental Contact
Entity Name: Martha Rojas
Entity Title:
Address: 27682 Highway 74
City: Romoland
State: CA
Country:
Zip Code: 92585
Phone:

Affil Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title:
Address: 4065 County Circle Drive, Room 104
City: Riverside
State: CA
Country:
Zip Code: 92503
Phone: (951) 358-5055

Affil Type Desc: Operator
Entity Name: Carmen Lydia Rojas
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (951) 214-9662

8	2 of4	ENE	0.20 / 1,040.53	1,441.56 / 9	**Romo Gas Mart** **27682 Highway 74** **Romoland CA 92585**	UST

Facility ID:
CERS ID: 10709704
County: Riverside
Latitude: 33.7473
Longitude: -117.1772
CalEnviroScrn 4 Pct: 55-60%

Permitting Agency: Riverside County Department of Environmental Health
Site Facility Type: PERMITTED UNDERGROUND STORAGE TANK (UST)
Note: Information related to facilities can be searched on Geo Tracker Website: https://geotracker.waterboards.ca.gov/search

Tank Details

Epa Region: 9
No. of Closed UST: 0
No. of Inuse UST:
No. of Oos UST: 0
Owner Type: Non-Government
Tank ID No.: 3
Tank Status: Confirmed/Updated Information
Tank Type: Single Wall
Tank Alarms: No
Tank Ball Float: No
Tank Operator Name: Carmen Lydia Rojas
Tank Operator Mail Address: 27682 Highway 74
Tank Operator Mail City: Romoland
Tank Operator Mail State: CA
Tank Operator Mail Zip: 92585
Tank Owner Name: Carmen Lydia Rojas
Tank Owner Mailing Address: 27682 Highway 74
Tank Owner Mailing City: Romoland
Tank Owner Mailing State: CA
Tank Owner Mailing Zip: 92585
Tank Capacity Gallons: 4000
Tank Piping Construction: Single Walled
Tank Piping Type: Pressure
Tank Pw Piping Construction: None
Tank Sacrificial Anode: No

Tank Closure Date:
Tank Configuration: Stand Alone Tank
Tank Contents: Diesel
Tank Cp Impr Curr: No
Tank Cp Shutoff: No
Tank Installatn Dt: 1/1/1900 12:00:00 AM
Tank No of Compart: 1
Tank Pc Constructn: Steel
Tank Spill Bucket: Yes
Tribal Lands: No

Tank Details

Epa Region: 9
No. of Closed UST: 0
No. of Inuse UST:
No. of Oos UST: 0
Owner Type: Non-Government
Tank ID No.: 1
Tank Status: Confirmed/Updated Information
Tank Type: Single Wall
Tank Alarms: No
Tank Ball Float: No
Tank Operator Name: Carmen Lydia Rojas
Tank Operator Mail Address: 27682 Highway 74
Tank Operator Mail City: Romoland
Tank Operator Mail State: CA
Tank Operator Mail Zip: 92585
Tank Owner Name: Carmen Lydia Rojas
Tank Owner Mailing Address: 27682 Highway 74
Tank Owner Mailing City: Romoland
Tank Owner Mailing State: CA
Tank Owner Mailing Zip: 92585
Tank Capacity Gallons: 5000
Tank Piping Construction: Single Walled
Tank Piping Type: Pressure
Tank Pw Piping Construction: None
Tank Sacrificial Anode: No

Tank Closure Date:
Tank Configuration: Stand Alone Tank
Tank Contents: Regular Unleaded
Tank Cp Impr Curr: No
Tank Cp Shutoff: No
Tank Installatn Dt: 1/1/1900 12:00:00 AM
Tank No of Compart: 1
Tank Pc Constructn: Steel
Tank Spill Bucket: Yes
Tribal Lands: No

Tank Details

Epa Region: 9
No. of Closed UST: 0
No. of Inuse UST:

Tank Closure Date:
Tank Configuration: Stand Alone Tank
Tank Contents: Premium Unleaded

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

No. of Oos UST:	0	**Tank Cp Impr Curr:**	No
Owner Type:	Non-Government	**Tank Cp Shutoff:**	No
Tank ID No.:	2	**Tank Installatn Dt:**	1/1/1900 12:00:00 AM
Tank Status:	Confirmed/Updated Information	**Tank No of Compart:**	1
Tank Type:	Single Wall	**Tank Pc Constructn:**	Steel
Tank Alarms:	No	**Tank Spill Bucket:**	Yes
Tank Ball Float:	No	**Tribal Lands:**	No
Tank Operator Name:	Carmen Lydia Rojas		
Tank Operator Mail Address:	27682 Highway 74		
Tank Operator Mail City:	Romoland		
Tank Operator Mail State:	CA		
Tank Operator Mail Zip:	92585		
Tank Owner Name:	Carmen Lydia Rojas		
Tank Owner Mailing Address:	27682 Highway 74		
Tank Owner Mailing City:	Romoland		
Tank Owner Mailing State:	CA		
Tank Owner Mailing Zip:	92585		
Tank Capacity Gallons:	5000		
Tank Piping Construction:	Single Walled		
Tank Piping Type:	Pressure		
Tank Pw Piping Construction:	None		
Tank Sacrificial Anode:	No		

8	3 of4	ENE	0.20 / 1,040.53	1,441.56 / 9	ROMO GAS MART 27682 HIGHWAY 74 ROMOLAND CA	UST SWEEPS

C C:	A33-000-31978	**D Filename:**	SITE16A
BOE:	44-018149	**Page No:**	130
Comp:	31978	**County:**	RIVERSIDE
Status:	ACTIVE	**State :**	CA
No of Tanks:	3	**Zip:**	92380
Jurisdict:	RIVERSIDE COUNTY	**Latitude:**	0
Agency:	ENVIRONMENTAL HEALTH - U.S.T.	**Longitude:**	0
Phone:		**Georesult:**	N

Tank Details

Tank ID:	000002	**S Contain:**	
O Tank ID:	001547	**Stg:**	P
SWRCB No:	33-000-031978-000002	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	11-18-92	**Content:**	LEADED
Capac:	5000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK16A

Tank Details

Tank ID:	000003	**S Contain:**	
O Tank ID:	001547	**Stg:**	P
SWRCB No:	33-000-031978-000003	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	11-18-92	**Content:**	DIESEL
Capac:	4000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK16A

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	001547	**Stg:**	P
SWRCB No:	33-000-031978-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

A Date:	11-18-92		**Content:**	REG UNLEADED	
Capac:	5000		**ONA:**		
Tank Use:	M.V. FUEL		**D File Name:**	TANK16A	

8	4 of4	ENE	0.20 / 1,040.53	1,441.56 / 9	Romo Gas Mart 27682 Hwy 74 Romoland CA 92585	UST RIVERSIDE

No of Tanks: 3

9	1 of4	S	0.20 / 1,043.86	1,431.48 / -1	Chaney's Automotive 27411 Ethanac Rd Romoland CA	LOP RIVERSIDE

Site ID:	93620	**Closed Code:**	Y
Status Code:	9	**Closed Desc:**	CLOSED SITE
Status Desc:	CLOSED/ACTION COMPLETED	**Employee:**	Malloy
Case Type Code:	S		
Case Type Desc:	SOIL ONLY IS IMPACTED		

9	2 of4	S	0.20 / 1,043.86	1,431.48 / -1	Chaney's Auto Repair 27411 Ethanac Rd Romoland CA 92585	DELISTED COUNTY

Delisted County Records

Original Source Facility ID:	
Original Source Name:	Riverside County Disclosure Facility List
Record Dt:	10-JUN-2015
Record Date:	10-JUN-2015

9	3 of4	S	0.20 / 1,043.86	1,431.48 / -1	CHANEY'S AUTOMOTIVE 27411 ETHANAC ROAD ROMOLAND CA 92580	LUST

Global ID:	T0606500332	**Case Type (DL):**	LUST Cleanup Site
Site Facility Type:	LUST CLEANUP SITE	**Oil Field (SRCH):**	
Site Fac Type (SRCH):	LUST CLEANUP SITE	**Oil Field Oper (SRCH):**	
Status:		**Census Tract (SRCH):**	6065042728
Status (SRCH):	COMPLETED - CASE CLOSED	**Latitude (DL):**	33.7424785024374
Status (DL):	Completed - Case Closed	**Longitude (DL):**	-117.182165506781
Status Date (DL):	9/29/2000	**RWQCB Region (DL):**	SANTA ANA RWQCB (REGION 8)
Cleanup Status:	COMPLETED - CASE CLOSED		
Site Facility Name (SRCH):	CHANEY'S AUTOMOTIVE		
Address (SRCH):	27411 ETHANAC ROAD		
City (SRCH):	ROMOLAND		
Zip (SRCH):	92580		
County (SRCH):	RIVERSIDE		
Street No (DL):	27411		
Street Name (DL):	ETHANAC ROAD		
City (DL):	ROMOLAND		
Zip (DL):	92580		
County (DL):	Riverside		
State (DL):	CA		
Business Name (DL):	Chaney's Automotive		
Site Facility Name:	CHANEY'S AUTOMOTIVE		
Address :	27411 ETHANAC ROAD		
City :	ROMOLAND		
Zip :	92580		
County :	RIVERSIDE		
Report Source:	GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report		

GeoTracker Sites Data Download - Site Details

CUF Case:	NO
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case No:	083302297T
Local Case No:	93620
File Location:	Local Agency Warehouse
Potential COC:	Waste Oil / Motor / Hydraulic / Lubricating
Potential Media of Concern:	Aquifer used for drinking water supply
Begin Date:	9/30/1992
How Discovered:	Tank Closure
How Discovered Description:	
Stop Method:	Close and Remove Tank
Stop Description:	
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name:	San Jacinto (8-005)
Disadvantaged Community:	
CalEnvScreen Score:	
Coordinate Source:	Google Map Move
Discharge Cause:	Unknown
Discharge Source:	Other
EPA Region:	9
Leak Reported Dt:	1992-10-02 00:00:00
Military DoD Site:	No
No Further Action Dt:	2000-09-29 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	25-30%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	
Phone No:	9519558980

Contact Type:	Regional Board Caseworker
Contact Name:	MAILE SEEGER GEE
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	maile.gee@waterboards.ca.gov
Phone No:	9517824379

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	9/29/2000

Status:	Open - Site Assessment
Status Date:	7/9/1993

Status:	Open - Site Assessment
Status Date:	9/30/1992

Status:	Open - Case Begin Date
Status Date:	9/30/1992

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	CHANEY'S AUTOMOTIVE
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	27411 ETHANAC ROAD
City:	ROMOLAND
Zip:	92580
County:	RIVERSIDE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500332
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 9/29/2000
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500332&tabname=regulatoryhistory
Potential COC:	WASTE OIL / MOTOR / HYDRAULIC / LUBRICATING
Potential Media of Concern:	AQUIFER USED FOR DRINKING WATER SUPPLY
File Location:	LOCAL AGENCY WAREHOUSE
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
DWR GW Sub Basin:	San Jacinto (8-005)
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use:	UNKNOWN
Cleanup Oversight Agencies:	RIVERSIDE COUNTY LOP (LEAD) - CASE #: 93620 CASE MANAGER: Riverside County LOP SANTA ANA RWQCB (REGION 8) - CASE #: 083302297T CASE MANAGER: MAILE SEEGER GEE
CUF Claim No:	
CUF Priority Assig:	
CUF Amount Paid:	
WDR Place Type:	
WDR File No:	
WDR Order No:	
Project Oversight Agencies:	
Facility Type:	
Composting Method:	
Grndwtr Monitoring Frequency:	
Designated Beneficial Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status:	Completed - Case Closed
Date :	9/29/2000
Status:	Open - Site Assessment
Date :	7/9/1993
Status:	Open - Case Begin Date
Date :	9/30/1992
Status:	Open - Site Assessment
Date :	9/30/1992

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type:	Other Regulatory Actions
Action:	Closure/No Further Action Letter - #Riv Co Closure
Action Date:	9/29/2000
Received Issue Date:	9/29/2000
Doc Link:	https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6006332&temptable=ENFORCEMENT

Title Description Comments:

Riv Co Site Closure

Action Type: Other Regulatory Actions
Action: File review - #RCDEH Upload Site File 4/21/2010
Action Date: 9/28/2000
Received Issue Date: 9/28/2000
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6048839&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 4/21/2010

Action Type: Leak Action
Action: Leak Reported
Action Date: 10/2/1992
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Stopped
Action Date: 9/30/1992
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 9/30/1992
Received Issue Date:
Doc Link:
Title Description Comments:

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents ***Document Date:*** 9/29/2000
Type: CLOSURE/NO FURTHER ACTION LETTER ***Submitted:***
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Title: RIV CO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6006332

Document Type: Site Documents ***Document Date:*** 9/28/2000
Type: FILE REVIEW ***Submitted:***
Submitted By: LINDA SHURLOW (REGULATOR)
Title: RCDEH UPLOAD SITE FILE 4/21/2010
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500332&enforcement_id=6048839

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	4 of4	S	0.20 / 1,043.86	1,431.48 / -1	LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE 27411 ETHANAC RD SUN CITY CA 92585	RCRA NON GEN

EPA Handler ID: CAL000409435
Gen Status Universe: No Report
Contact Name: BRAD LONG
Contact Address: 26100 FARMINGTON RD , , MENIFEE , CA, 92584 ,
Contact Phone No and Ext: 951-928-1966
Contact Email: RRADBRAD@VERIZON.NET
Contact Country:
County Name: RIVERSIDE
EPA Region: 09

Land Type:
Receive Date: 20150819
Location Latitude: 33.742902
Location Longitude: -117.182

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20150819
Handler Name: LONGS ENTERPRISES INC DBA LONGS AUTOMOTIVE
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: BRAD LONG
Date Became Current:
Date Ended Current:
Phone: 951-928-1966
Source Type: Implementer
Street No:
Street 1: 26100 FARMINGTON RD
Street 2:
City: MENIFEE
State: CA
Country:
Zip Code: 92584-9268

Owner/Operator Ind: Current Operator
Type: Other
Name: BRAD LONG
Date Became Current:
Date Ended Current:
Phone: 951-928-1966
Source Type: Implementer
Street No:
Street 1: 26100 FARMINGTON RD
Street 2:
City: MENIFEE
State: CA
Country:
Zip Code: 92584

10	1 of2	SW	0.20 / 1,076.64	1,429.48 / -3	GENCORP AUTO BODY SHOP 27271 ETHANAC RD MENIFEE CA 92585	RCRA NON GEN

EPA Handler ID: CAL000414411
Gen Status Universe: No Report
Contact Name: KENNETH CANDRAY
Contact Address: 13526 , SOMERGATE DR , MORENO VALLEY , CA, 92555-0000 ,

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Contact Phone No and Ext: 951-526-6850
Contact Email: INFO@GENCORPAUTOBODYSHOP.COM
Contact Country:
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 20160218
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20160218
Handler Name: GENCORP AUTO BODY SHOP
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: WILLIAM A SALVADOR
Date Became Current:
Date Ended Current:
Phone: 951-534-2737
Source Type: Implementer
Street No:
Street 1: 13526
Street 2: SOMERGATE DR
City: MORENO VALLEY
State: CA
Country:
Zip Code: 92555-0000

Owner/Operator Ind: Current Operator
Type: Other
Name: KENNETH CANDRAY
Date Became Current:
Date Ended Current:
Phone: 951-526-6850
Source Type: Implementer
Street No:
Street 1: 13526
Street 2: SOMERGATE DR
City: MORENO VALLEY
State: CA
Country:
Zip Code: 92555-0000

10	2 of2	SW	0.20 / 1,076.64	1,429.48 / -3	TOP TECH AUTO & SONS 27271 ETHANAC RD STE 103 SUN CITY CA 92585	RCRA NON GEN

EPA Handler ID:	CAL000333847
Gen Status Universe:	No Report
Contact Name:	JOSEPH HARTFIELD
Contact Address:	27271 ETHANAC RD STE 103 , , SUN CITY , CA, 92585 ,
Contact Phone No and Ext:	951-928-8488
Contact Email:	HARTFIELDJOSEPH@YAHOO.COM
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20080619
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20080619
Handler Name:	TOP TECH AUTO & SONS
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	27271 ETHANAC RD STE 103
Name:	ANGIE HARTFIELD	***Street 2:***	
Date Became Current:		***City:***	SUN CITY
Date Ended Current:		***State:***	CA
Phone:	951-796-1351	***Country:***	
Source Type:	Implementer	***Zip Code:***	92585

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	27271 ETHANAC RD STE 103
Name:	JOSEPH HARTFIELD	***Street 2:***	
Date Became Current:		***City:***	SUN CITY
Date Ended Current:		***State:***	CA
Phone:	951-928-8488	***Country:***	
Source Type:	Implementer	***Zip Code:***	92585

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	1 of1	SSW	0.21 / 1,099.34	1,430.48 / -2	CA	PFAS GW

Well ID:	EMWD_77	**SRS Latitude:**	33.742322899999998
Gm Dataset Name:	LOCALGW	**SRS Longitude:**	-117.1831737
Gm Data Source:	GeoTracker	**Latitude:**	33.742322899999998
Gm Well Category:	Water Supply, Other	**Longitude:**	-117.1831737
SRS Datum:	NAD83		
Gm Altwell Id1:	EMWD_77		
Gm Altwell Id2:			
Gm Altwell Id3:			

Well Details

Gm Cas No:		**SRC Chemical:**	PFHXSA
Gm Result:	.66	**SRC Result:**	.66
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHXSA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorohexanesulfonic acid (PFHxS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	11ClPF3OUDS
Gm Result:	.36	**SRC Result:**	.36
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	11ClPF3OUDS	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFHPA
Gm Result:	.54	**SRC Result:**	.54
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHPA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoroheptanoic acid (PFHpA)		

Gm Samp Collection Date:	07/12/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	07/12/2023
SRC Samp Collection Time:	1530
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	08/06/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFOS
Gm Result:	.76	**SRC Result:**	.76
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFOS	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	Perfluorooctane sulfonate (PFOS)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	8:2FTS
Gm Result:	.51	**SRC Result:**	.51
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	8:2FTS	**SRC Report Limit:**	5
Gm Reporting Limit:	5	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	8:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid) (8:2 FTS)
Gm Samp Collection Date:	07/12/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	07/12/2023
SRC Samp Collection Time:	1530
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	08/06/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFBSA
Gm Result:	.4	**SRC Result:**	.4
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFBSA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	Perfluorobutane sulfonic acid (PFBS)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180

Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFHA
Gm Result:	.62	**SRC Result:**	.62
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	Perfluorohexanoic acid (PFHxA)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	6:2FTS
Gm Result:	.76	**SRC Result:**	.76
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	6:2FTS	**SRC Report Limit:**	5
Gm Reporting Limit:	5	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	6:2 Fluorotelomer sulfonic acid (1H,1H,2H,2H-Perfluorooctanesulfonic acid) (6:2 FTS)
Gm Samp Collection Date:	07/12/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	07/12/2023
SRC Samp Collection Time:	1530
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	08/06/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	8:2FTS
Gm Result:	.46	**SRC Result:**	.46
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	8:2FTS	**SRC Report Limit:**	4.5
Gm Reporting Limit:	4.5	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	8:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid) (8:2 FTS)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023

SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		***SRC Chemical:***	PFNDCA
Gm Result:	.4	***SRC Result:***	.4
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFNDCA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorodecanoic acid (PFDA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	NFDHA
Gm Result:	.33	***SRC Result:***	.33
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	NFDHA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFNA
Gm Result:	.51	***SRC Result:***	.51
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFNA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorononanoic acid (PFNA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		

SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		***SRC Chemical:***	PFHXSA
Gm Result:	.66	***SRC Result:***	.66
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFHXSA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorohexanesulfonic acid (PFHxS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFBTA
Gm Result:	.64	***SRC Result:***	.64
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFBTA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorobutyric acid (PFBA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFHPA
Gm Result:	.54	***SRC Result:***	.54
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFHPA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluoroheptanoic acid (PFHpA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			

SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFMBA
Gm Result:	.28	**SRC Result:**	.28
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFMBA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro-4-methoxybutanoic acid (PFMBA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFNA
Gm Result:	.56	**SRC Result:**	.56
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFNA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorononanoic acid (PFNA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFOS
Gm Result:	.83	**SRC Result:**	.83
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFOS	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorooctane sulfonate (PFOS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFHPSA
Gm Result:	.38	***SRC Result:***	.38
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFHPSA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluoroheptane sulfonic acid (PFHpS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFOA
Gm Result:	.48	***SRC Result:***	.48
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFOA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorooctanoic acid (PFOA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	HFPA-DA
Gm Result:	.7	***SRC Result:***	.7
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	HFPA-DA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid (HFPO-DA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFNDCA
Gm Result:	.36	***SRC Result:***	.36
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFNDCA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorodecanoic acid (PFDA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	6:2FTS
Gm Result:	.69	***SRC Result:***	.69
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	6:2FTS	***SRC Report Limit:***	4.5
Gm Reporting Limit:	4.5	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	6:2 Fluorotelomer sulfonic acid (1H,1H,2H,2H-Perfluorooctanesulfonic acid) (6:2 FTS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFPES
Gm Result:	.57	***SRC Result:***	.57
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFPES	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluoropentane sulfonoic acid (PFPeS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFMPA
Gm Result:	.49	**SRC Result:**	.49
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFMPA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro-3-methoxypropanoic acid (PFMPA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFPA
Gm Result:	.45	**SRC Result:**	.45
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFPA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoropentanoic acid (PFPeA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFOA
Gm Result:	.47	**SRC Result:**	.47
Gm Result Modifier:	ND	**SRC Result Modifie:**	ND
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFOA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorooctanoic acid (PFOA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:	J		
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFUNDCA
Gm Result:	.29	**SRC Result:**	.29

Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFUNDCA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoroundecanoic acid (PFUnDA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	ADONA
Gm Result:	.52	**SRC Result:**	.52
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	ADONA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	4:2FTS
Gm Result:	.54	**SRC Result:**	.54
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	4:2FTS	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	4:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid) (4:2 FTS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFHA
Gm Result:	.69	**SRC Result:**	.69
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L

Gm Chemical Vvl:	PFHA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorohexanoic acid (PFHxA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	NFDHA
Gm Result:	.33	**SRC Result:**	.33
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	NFDHA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	4:2FTS
Gm Result:	.49	**SRC Result:**	.49
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	4:2FTS	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	4:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid) (4:2 FTS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFOA
Gm Result:	.72	**SRC Result:**	.72
Gm Result Modifier:	ND	**SRC Result Modifie:**	ND
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFOA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533

Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorooctanoic acid (PFOA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:	J		
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFHXSA
Gm Result:	.6	**SRC Result:**	.6
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHXSA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorohexanesulfonic acid (PFHxS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFDOA
Gm Result:	.27	**SRC Result:**	.27
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFDOA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorododecanoic acid (PFDoDA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFBTA
Gm Result:	.58	**SRC Result:**	.58
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFBTA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorobutyric acid (PFBA)		

Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFPA
Gm Result:	.41	**SRC Result:**	.41
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFPA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoropentanoic acid (PFPeA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	HFPA-DA
Gm Result:	.77	**SRC Result:**	.77
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	HFPA-DA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid (HFPO-DA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFEESA
Gm Result:	.47	**SRC Result:**	.47
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFEESA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		

Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFNA
Gm Result:	.56	**SRC Result:**	.56
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFNA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	Perfluorononanoic acid (PFNA)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFHPSA
Gm Result:	.35	**SRC Result:**	.35
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHPSA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	Perfluoroheptane sulfonic acid (PFHpS)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFMPA
Gm Result:	.54	**SRC Result:**	.54
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFMPA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572

Gm Chemical Name:	Perfluoro-3-methoxypropanoic acid (PFMPA)
Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023

SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		***SRC Chemical:***	PFDOA
Gm Result:	.24	***SRC Result:***	.24
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFDOA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorododecanoic acid (PFDoDA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFEESA
Gm Result:	.43	***SRC Result:***	.43
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFEESA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	9ClPF3ONS
Gm Result:	.42	***SRC Result:***	.42
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	9ClPF3ONS	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		

SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	08/06/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFOS
Gm Result:	.83	**SRC Result:**	.83
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFOS	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorooctane sulfonate (PFOS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFMPA
Gm Result:	.54	**SRC Result:**	.54
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFMPA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro-3-methoxypropanoic acid (PFMPA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFBTA
Gm Result:	.64	**SRC Result:**	.64
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFBTA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorobutyric acid (PFBA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			

SRC Analysis Date: 06/29/2023
SRC Well Category: Water Supply Well

Well Details

Gm Cas No:
Gm Result: .57
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: PFPES
Gm Reporting Limit: 2
Gm Well Depth Ft: 572
Gm Chemical Name: Perfluoropentane sulfonoic acid (PFPeS)
Gm Samp Collection Date: 07/12/2023
Gm Screen Top Depth Ft: 180
Gm Screen Bottom Depth Ft: 490
SRC Samp Collection Date: 07/12/2023
SRC Samp Collection Time: 1530
SRC Screen Top Depth Ft: 180
SRC Screen Bottom Depth Ft: 490
SRC Lab Note:
SRC Analysis Date: 08/06/2023
SRC Well Category: Water Supply Well
SRC Chemical: PFPES
SRC Result: .57
SRC Result Modifie: <
Src Chemical Units: NG/L
SRC Report Limit: 2
SRC Analytic Meth: E533
SRC Well Depth Ft: 572

Well Details

Gm Cas No:
Gm Result: .47
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: ADONA
Gm Reporting Limit: 1.8
Gm Well Depth Ft: 572
Gm Chemical Name: 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
Gm Samp Collection Date: 06/08/2023
Gm Screen Top Depth Ft: 180
Gm Screen Bottom Depth Ft: 490
SRC Samp Collection Date: 06/08/2023
SRC Samp Collection Time: 1120
SRC Screen Top Depth Ft: 180
SRC Screen Bottom Depth Ft: 490
SRC Lab Note:
SRC Analysis Date: 06/29/2023
SRC Well Category: Water Supply Well
SRC Chemical: ADONA
SRC Result: .47
SRC Result Modifie: <
Src Chemical Units: NG/L
SRC Report Limit: 1.8
SRC Analytic Meth: E533
SRC Well Depth Ft: 572

Well Details

Gm Cas No:
Gm Result: .76
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: 6:2FTS
Gm Reporting Limit: 5
Gm Well Depth Ft: 572
Gm Chemical Name: 6:2 Fluorotelomer sulfonic acid (1H,1H,2H,2H-Perfluorooctanesulfonic acid) (6:2 FTS)
Gm Samp Collection Date: 06/08/2023
Gm Screen Top Depth Ft: 180
Gm Screen Bottom Depth Ft: 490
SRC Samp Collection Date: 06/08/2023
SRC Samp Collection Time: 1120
SRC Screen Top Depth Ft: 180
SRC Screen Bottom Depth Ft: 490
SRC Lab Note:
SRC Analysis Date: 06/29/2023
SRC Well Category: Water Supply Well
SRC Chemical: 6:2FTS
SRC Result: .76
SRC Result Modifie: <
Src Chemical Units: NG/L
SRC Report Limit: 5
SRC Analytic Meth: E533
SRC Well Depth Ft: 572

Well Details

Gm Cas No:		***SRC Chemical:***	PFPES
Gm Result:	.52	***SRC Result:***	.52
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFPES	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluoropentane sulfonoic acid (PFPeS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFBSA
Gm Result:	.44	***SRC Result:***	.44
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFBSA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorobutane sulfonic acid (PFBS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	ADONA
Gm Result:	.52	***SRC Result:***	.52
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	ADONA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	4:2FTS
Gm Result:	.54	***SRC Result:***	.54
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	4:2FTS	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	4:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid) (4:2 FTS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFOA
Gm Result:	.43	***SRC Result:***	.43
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFOA	***SRC Report Limit:***	1.8
Gm Reporting Limit:	1.8	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluorooctanoic acid (PFOA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		***SRC Chemical:***	PFUNDCA
Gm Result:	.29	***SRC Result:***	.29
Gm Result Modifier:	<	***SRC Result Modifie:***	<
Gm Chemical Units:	NG/L	***Src Chemical Units:***	NG/L
Gm Chemical Vvl:	PFUNDCA	***SRC Report Limit:***	2
Gm Reporting Limit:	2	***SRC Analytic Meth:***	E533
Gm Well Depth Ft:	572	***SRC Well Depth Ft:***	572
Gm Chemical Name:	Perfluoroundecanoic acid (PFUnDA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	NFDHA
Gm Result:	.3	**SRC Result:**	.3
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	NFDHA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFUNDCA
Gm Result:	.26	**SRC Result:**	.26
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFUNDCA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoroundecanoic acid (PFUnDA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFMBA
Gm Result:	.25	**SRC Result:**	.25
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFMBA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro-4-methoxybutanoic acid (PFMBA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFHPA
Gm Result:	.49	**SRC Result:**	.49

Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHPA	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoroheptanoic acid (PFHpA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFEESA
Gm Result:	.47	**SRC Result:**	.47
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFEESA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	11ClPF3OUDS
Gm Result:	.4	**SRC Result:**	.4
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	11ClPF3OUDS	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	HFPA-DA
Gm Result:	.77	**SRC Result:**	.77
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L

Gm Chemical Vvl:	HFPA-DA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid (HFPO-DA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFNDCA
Gm Result:	.4	**SRC Result:**	.4
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFNDCA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorodecanoic acid (PFDA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	9ClPF3ONS
Gm Result:	.42	**SRC Result:**	.42
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	9ClPF3ONS	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	9ClPF3ONS
Gm Result:	.38	**SRC Result:**	.38
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	9ClPF3ONS	**SRC Report Limit:**	1.8
Gm Reporting Limit:	1.8	**SRC Analytic Meth:**	E533

Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	8:2FTS
Gm Result:	.51	**SRC Result:**	.51
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	8:2FTS	**SRC Report Limit:**	5
Gm Reporting Limit:	5	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	8:2 Fluorotelomer sulfonic acid (1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid) (8:2 FTS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFMBA
Gm Result:	.28	**SRC Result:**	.28
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFMBA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoro-4-methoxybutanoic acid (PFMBA)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFHA
Gm Result:	.69	**SRC Result:**	.69
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluorohexanoic acid (PFHxA)		

Gm Samp Collection Date:	06/08/2023
Gm Screen Top Depth Ft:	180
Gm Screen Bottom Depth Ft:	490
SRC Samp Collection Date:	06/08/2023
SRC Samp Collection Time:	1120
SRC Screen Top Depth Ft:	180
SRC Screen Bottom Depth Ft:	490
SRC Lab Note:	
SRC Analysis Date:	06/29/2023
SRC Well Category:	Water Supply Well

Well Details

Gm Cas No:		**SRC Chemical:**	PFPA
Gm Result:	.45	**SRC Result:**	.45
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFPA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoropentanoic acid (PFPeA)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	07/12/2023		
SRC Samp Collection Time:	1530		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	08/06/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	PFHPSA
Gm Result:	.38	**SRC Result:**	.38
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	PFHPSA	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	Perfluoroheptane sulfonic acid (PFHpS)		
Gm Samp Collection Date:	06/08/2023		
Gm Screen Top Depth Ft:	180		
Gm Screen Bottom Depth Ft:	490		
SRC Samp Collection Date:	06/08/2023		
SRC Samp Collection Time:	1120		
SRC Screen Top Depth Ft:	180		
SRC Screen Bottom Depth Ft:	490		
SRC Lab Note:			
SRC Analysis Date:	06/29/2023		
SRC Well Category:	Water Supply Well		

Well Details

Gm Cas No:		**SRC Chemical:**	11ClPF3OUDS
Gm Result:	.4	**SRC Result:**	.4
Gm Result Modifier:	<	**SRC Result Modifie:**	<
Gm Chemical Units:	NG/L	**Src Chemical Units:**	NG/L
Gm Chemical Vvl:	11ClPF3OUDS	**SRC Report Limit:**	2
Gm Reporting Limit:	2	**SRC Analytic Meth:**	E533
Gm Well Depth Ft:	572	**SRC Well Depth Ft:**	572
Gm Chemical Name:	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)		
Gm Samp Collection Date:	07/12/2023		
Gm Screen Top Depth Ft:	180		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Gm Screen Bottom Depth Ft: 490
SRC Samp Collection Date: 07/12/2023
SRC Samp Collection Time: 1530
SRC Screen Top Depth Ft: 180
SRC Screen Bottom Depth Ft: 490
SRC Lab Note:
SRC Analysis Date: 08/06/2023
SRC Well Category: Water Supply Well

Well Details

Gm Cas No:
Gm Result: .27
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: PFDOA
Gm Reporting Limit: 2
Gm Well Depth Ft: 572
Gm Chemical Name: Perfluorododecanoic acid (PFDoDA)
Gm Samp Collection Date: 07/12/2023
Gm Screen Top Depth Ft: 180
Gm Screen Bottom Depth Ft: 490
SRC Samp Collection Date: 07/12/2023
SRC Samp Collection Time: 1530
SRC Screen Top Depth Ft: 180
SRC Screen Bottom Depth Ft: 490
SRC Lab Note:
SRC Analysis Date: 08/06/2023
SRC Well Category: Water Supply Well
SRC Chemical: PFDOA
SRC Result: .27
SRC Result Modifie: <
Src Chemical Units: NG/L
SRC Report Limit: 2
SRC Analytic Meth: E533
SRC Well Depth Ft: 572

Well Details

Gm Cas No:
Gm Result: .44
Gm Result Modifier: <
Gm Chemical Units: NG/L
Gm Chemical Vvl: PFBSA
Gm Reporting Limit: 2
Gm Well Depth Ft: 572
Gm Chemical Name: Perfluorobutane sulfonic acid (PFBS)
Gm Samp Collection Date: 06/08/2023
Gm Screen Top Depth Ft: 180
Gm Screen Bottom Depth Ft: 490
SRC Samp Collection Date: 06/08/2023
SRC Samp Collection Time: 1120
SRC Screen Top Depth Ft: 180
SRC Screen Bottom Depth Ft: 490
SRC Lab Note:
SRC Analysis Date: 06/29/2023
SRC Well Category: Water Supply Well
SRC Chemical: PFBSA
SRC Result: .44
SRC Result Modifie: <
Src Chemical Units: NG/L
SRC Report Limit: 2
SRC Analytic Meth: E533
SRC Well Depth Ft: 572

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
12	1 of1	SSE	0.23 / 1,188.88	1,432.48 / 0	Tire Stop & Recycling 27491 Ethanac Rd Sun City CA 92585	DELISTED COUNTY

Delisted County Records

Original Source Facility ID:
Original Source Name: Riverside County Disclosure Facility List
Record Dt: 10-JUN-2015
Record Date: 10-JUN-2015

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	1 of1	W	0.24 / 1,246.64	1,426.48 / -6	Sun City Menifee Dialysis 1702 Illinois Ave Perris CA 92571	MED WST RIVERSIDE

Fac ID: FA0037938
Facility Phone No: 9519281369
Owner Phone No: 9519281369
Account Phone No:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
14	1 of1	E	0.25 / 1,311.25	1,443.48 / 11	BUTLER SCALES ZEPEDE 27736 HWY 74 ROMOLAND CA 92585	RCRA SQG

EPA Handler ID: CAD981621121
Gen Status Universe: Small Quantity Generator
Contact Name:
Contact Address: US
Contact Phone No and Ext:
Contact Email:
Contact Country: US
County Name: RIVERSIDE
EPA Region: 09
Land Type:
Receive Date: 19960901
Location Latitude: 33.74654
Location Longitude: -117.17638

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19870213
Handler Name: BUTLER SCALES ZEPEDE
Federal Waste Generator Code: 1
Generator Code Description: Large Quantity Generator
Source Type: Notification

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 19960901

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Handler Name:	BUTLER SCALES ZEPEDE
Federal Waste Generator Code:	2
Generator Code Description:	Small Quantity Generator
Source Type:	Implementer

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Private	**Street 1:**	NOT REQUIRED
Name:	NOT REQUIRED	**Street 2:**	
Date Became Current:		**City:**	NOT REQUIRED
Date Ended Current:		**State:**	ME
Phone:	415-555-1212	**Country:**	
Source Type:	Implementer	**Zip Code:**	99999

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Private	**Street 1:**	NOT REQUIRED
Name:	BUTLER SCALES ZEPEDE	**Street 2:**	
Date Became Current:		**City:**	NOT REQUIRED
Date Ended Current:		**State:**	ME
Phone:	415-555-1212	**Country:**	
Source Type:	Notification	**Zip Code:**	99999

Historical Handler Details

Receive Dt:	19870213
Generator Code Description:	Large Quantity Generator
Handler Name:	BUTLER SCALES ZEPEDE

15	*1 of1*	***WNW***	***0.25 / 1,314.27***	***1,427.08 / -5***	***EASTERN MUNICIPAL WATER DISTRICT CALL CENTER 1710 ILLINOIS AVE PERRIS CA 92572***	***RCRA NON GEN***

EPA Handler ID:	CAC003257855
Gen Status Universe:	No Report
Contact Name:	DOUG EDWARDS
Contact Address:	PO BOX 8300 , , PERRIS , CA, 92572 ,
Contact Phone No and Ext:	951-928-3777
Contact Email:	EDWARDSD@EMWD.ORG
Contact Country:	
County Name:	RIVERSIDE
EPA Region:	09
Land Type:	
Receive Date:	20231024
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No

Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20231024
Handler Name:	EASTERN MUNICIPAL WATER DISTRICT CALL CENTER
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	PO BOX 8300
Name:	DOUG EDWARDS	**Street 2:**	
Date Became Current:		**City:**	PERRIS
Date Ended Current:		**State:**	CA
Phone:	951-928-3777	**Country:**	
Source Type:	Implementer	**Zip Code:**	92572

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	2270 TRUMBLE RD PO BOX 8300
Name:	EASTERN MUNICIPAL WATER DISTRICT	**Street 2:**	
Date Became Current:		**City:**	PERRIS
Date Ended Current:		**State:**	CA
Phone:	951-928-3777	**Country:**	
Source Type:	Implementer	**Zip Code:**	92572-8300

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
16	1 of1	S	0.33 / 1,747.62	1,430.48 / -2	North County Sand & Gravel 26227 SHERMAN RD ROMOLAND CA 92585	DELISTED HAZ

Siteid:	52529
Latitude:	33.740590
Longitude:	-117.181560
Original Source:	CHAZ
Record Date:	22-MAR-2018

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
17	1 of1	ESE	0.33 / 1,748.28	1,439.48 / 7	Perris Yard 26245 DAWSON RD ROMOLAND CA 92585	DELISTED HAZ

Siteid:	56340
Latitude:	33.740100
Longitude:	-117.174900
Original Source:	CHAZ
Record Date:	20-OCT-2017

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
18	1 of2	E	0.37 / 1,956.80	1,444.48 / 12	Romoland Market 27856 Hwy 74 Romoland CA	LOP RIVERSIDE

Site ID:	92265	**Closed Code:**	Y
Status Code:	9	**Closed Desc:**	CLOSED SITE
Status Desc:	CLOSED/ACTION COMPLETED	**Employee:**	Brown

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Case Type Code: S
Case Type Desc: SOIL ONLY IS IMPACTED

18	2 of2	E	0.37 / 1,956.80	1,444.48 / 12	ROMOLAND MARKET 27856 HIGHWAY 74 ROMOLAND CA 92380	LUST

Global ID: T0606500088
Site Facility Type: LUST CLEANUP SITE
Site Fac Type (SRCH): LUST CLEANUP SITE
Status:
Status (SRCH): COMPLETED - CASE CLOSED
Status (DL): Completed - Case Closed
Status Date (DL): 7/25/1996
Cleanup Status: COMPLETED - CASE CLOSED
Site Facility Name (SRCH): ROMOLAND MARKET
Address (SRCH): 27856 HIGHWAY 74
City (SRCH): ROMOLAND
Zip (SRCH): 92380
County (SRCH): RIVERSIDE
Street No (DL): 27856
Street Name (DL): HIGHWAY 74
City (DL): ROMOLAND
Zip (DL): 92380
County (DL): Riverside
State (DL): CA
Business Name (DL): ROMOLAND MARKET
Site Facility Name: ROMOLAND MARKET
Address : 27856 HIGHWAY 74
City : ROMOLAND
Zip : 92380
County : RIVERSIDE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

Case Type (DL): LUST Cleanup Site
Oil Field (SRCH):
Oil Field Oper (SRCH):
Census Tract (SRCH): 6065042730
Latitude (DL): 33.7454021036022
Longitude (DL): -117.173973939734
RWQCB Region (DL): SANTA ANA RWQCB (REGION 8)

GeoTracker Sites Data Download - Site Details

CUF Case: YES
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: RIV
Local Agency: RIVERSIDE COUNTY LOP
RB Case No: 083300832T
Local Case No: 92265
File Location: Local Agency Warehouse
Potential COC: Gasoline
Potential Media of Concern: Soil
Begin Date: 3/19/1992
How Discovered: Tank Closure
How Discovered Description: Tank Removal
Stop Method: Close and Fill Tank in Place
Stop Description:
Calwater Watershed Name: San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name: San Jacinto (8-005)
Disadvantaged Community:
CalEnvScreen Score:
Coordinate Source: Google Map Move
Discharge Cause: Overfill
Discharge Source: Other
EPA Region: 9
Leak Reported Dt: 1992-03-19 00:00:00
Military DoD Site: No
No Further Action Dt: 1996-07-25 00:00:00
Qty Rlsd Gallons:
Facility Project Sub Type:
Calenviroscreen 3 Score: 66-70%
Calenviroscreen 4 Score: 55-60%
Site History:

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	
Phone No:	9519558980

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	7/25/1996
Status:	Open - Case Begin Date
Status Date:	3/19/1992
Status:	Open - Site Assessment
Status Date:	3/19/1992

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	ROMOLAND MARKET
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	27856 HIGHWAY 74
City:	ROMOLAND
Zip:	92380
County:	RIVERSIDE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500088
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 7/25/1996
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500088&tabname=regulatoryhistory
Potential COC:	GASOLINE
Potential Media of Concern:	SOIL
File Location:	LOCAL AGENCY WAREHOUSE
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
DWR GW Sub Basin:	San Jacinto (8-005)
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use:	
Cleanup Oversight Agencies:	RIVERSIDE COUNTY LOP (LEAD) - CASE #: 92265 CASE MANAGER: Riverside County LOP SANTA ANA RWQCB (REGION 8) - CASE #: 083300832T
CUF Claim No:	10695
CUF Priority Assig:	C
CUF Amount Paid:	$35,172
WDR Place Type:	
WDR File No:	
WDR Order No:	
Project Oversight Agencies:	
Facility Type:	
Composting Method:	
Grndwtr Monitoring Frequency:	
Designated Beneficial Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 7/25/1996

Status: Open - Case Begin Date
Date : 3/19/1992

Status: Open - Site Assessment
Date : 3/19/1992

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter - #Site Closure
Action Date: 2/17/2009
Received Issue Date: 2/17/2009
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500088&enforcement_id=6003167&temptable=ENFORCEMENT
Title Description Comments:

RivCo Site Closure

Action Type: Other Regulatory Actions
Action: File review - #RCDEH Upload Site File 10/21/2015
Action Date: 2/16/2009
Received Issue Date: 2/16/2009
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500088&enforcement_id=6063159&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 10/21/2015

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter
Action Date: 7/25/1996
Received Issue Date: 7/25/1996
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 3/19/1992
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Stopped
Action Date: 3/19/1992
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported
Action Date: 3/19/1992
Received Issue Date:
Doc Link:
Title Description Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents ***Document Date:*** 2/17/2009
Type: CLOSURE/NO FURTHER ACTION LETTER ***Submitted:***
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Title: RIVCO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500088&enforcement_id=6003167

Document Type: Site Documents ***Document Date:*** 2/16/2009
Type: FILE REVIEW ***Submitted:***
Submitted By: LINDA SHURLOW (REGULATOR)
Title: RCDEH UPLOAD SITE FILE 10/21/2015
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500088&enforcement_id=6063159

19	1 of1	NNW	0.38 / 2,019.57	1,427.50 / -5	FORWES HOLDINGS 27256 HWY 74 ROMOLAND CA	LUST

Global ID: T10000010036
Site Facility Type: LUST CLEANUP SITE
Site Fac Type (SRCH): LUST CLEANUP SITE
Status:
Status (SRCH): COMPLETED - CASE CLOSED
Status (DL): Completed - Case Closed
Status Date (DL): 12/15/2006
Cleanup Status: COMPLETED - CASE CLOSED
Site Facility Name (SRCH): FORWES HOLDINGS
Address (SRCH): 27256 HWY 74
City (SRCH): ROMOLAND
Zip (SRCH):
County (SRCH): RIVERSIDE
Street No (DL): 27256
Street Name (DL): Hwy 74
City (DL): Romoland
Zip (DL):
County (DL): Riverside
State (DL): CA
Business Name (DL): Forwes Holdings
Site Facility Name: FORWES HOLDINGS
Address : 27256 HWY 74
City : ROMOLAND
Zip :
County : RIVERSIDE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

Case Type (DL): LUST Cleanup Site
Oil Field (SRCH):
Oil Field Oper (SRCH):
Census Tract (SRCH): 6065042730
Latitude (DL): 33.75195
Longitude (DL): -117.18495
RWQCB Region (DL): SANTA ANA RWQCB (REGION 8)

GeoTracker Sites Data Download - Site Details

CUF Case: NO
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker:
Local Agency:
RB Case No:
Local Case No: CO0022015
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential COC: Gasoline
Potential Media of Concern:
Begin Date: 4/4/2006
How Discovered:
How Discovered Description:
Stop Method:
Stop Description:
Calwater Watershed Name: San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name: San Jacinto (8-005)
Disadvantaged Community: Disadvantaged Community
CalEnvScreen Score:
Coordinate Source:
Discharge Cause: Unknown

Discharge Source:	Dispenser
EPA Region:	9
Leak Reported Dt:	2006-04-04 00:00:00
Military DoD Site:	No
No Further Action Dt:	2006-12-15 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	55-60%
Site History:	

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	12/15/2006
Status:	Open - Eligible for Closure
Status Date:	12/14/2006
Status:	Open - Case Begin Date
Status Date:	4/4/2006
Status:	Open - Site Assessment
Status Date:	4/4/2006

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	FORWES HOLDINGS
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	27256 HWY 74
City:	ROMOLAND
Zip:	
County:	RIVERSIDE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000010036
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 12/15/2006
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T10000010036&tabname=regulatoryhistory
Potential COC:	GASOLINE
Potential Media of Concern:	NONE SPECIFIED
File Location:	ALL FILES ARE ON GEOTRACKER OR IN THE LOCAL AGENCY DATABASE
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
DWR GW Sub Basin:	San Jacinto (8-005)
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	
Future Land Use:	
Cleanup Oversight Agencies:	RIVERSIDE COUNTY LOP (LEAD) - CASE #: CO0022015 SANTA ANA RWQCB (REGION 8)
CUF Claim No:	
CUF Priority Assig:	
CUF Amount Paid:	
WDR Place Type:	
WDR File No:	
WDR Order No:	
Project Oversight Agencies:	
Facility Type:	
Composting Method:	
Grndwtr Monitoring Frequency:	
Designated Beneficial Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 12/15/2006

Status: Open - Eligible for Closure
Date : 12/14/2006

Status: Open - Case Begin Date
Date : 4/4/2006

Status: Open - Site Assessment
Date : 4/4/2006

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter
Action Date: 12/15/2006
Received Issue Date: 12/15/2006
Doc Link:
Title Description Comments:

NFA

Action Type: Other Regulatory Actions
Action: File review
Action Date: 12/14/2006
Received Issue Date: 12/14/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T10000010036&enforcement_id=6308486&temptable=ENFORCEMENT
Title Description Comments:

RCDEH site file uploaded 1/12/2017

Action Type: Leak Action
Action: Leak Reported
Action Date: 4/4/2006
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 4/4/2006
Received Issue Date:
Doc Link:
Title Description Comments:

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents ***Document Date:*** 12/14/2006
Type: FILE REVIEW ***Submitted:***
Submitted By: SHARON BOLTINGHOUSE (REGULATOR)
Title: RCDEH SITE FILE UPLOADED 1/12/2017
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T10000010036&enforcement_id=6308486

20	1 of4	NW	0.41 / 2,140.81	1,424.14 / -8	SOIL TREATMENT, ROMOLAND 27126 WATSON ROAD ROMOLAND CA 92380	LDS

Global ID:	L10003942515	***RWQCB Region:***	SANTA ANA RWQCB (REGION 8)
Facility ID:	L10003942515	***Longitude:***	-117.18714
Cleanup Status:	COMPLETED - CASE CLOSED	***Latitude:***	33.750667
Site Facility Type:	LAND DISPOSAL SITE		
Address:	27126 WATSON ROAD		
City:	ROMOLAND		
County:	Riverside		
State:	CA		
Zip:	92380		

GeoTracker Sites Data Download – Site Details

RB Case No:	8 332371001
Loc Case No:	
Status:	Completed - Case Closed
Status Date:	4/1/1999
Begin Date:	4/1/1999
Case Type:	Land Disposal Site
Cal Enviroscreen:	
Qty Released Gallons:	
CUF Case:	NO
EPA Region:	9
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Manager:	RA
Local Agency:	
File Location:	
Potential COC:	
Military DoD Site:	No
Leak Reported Dt:	
No Further Action Dt:	1999-04-01 00:00:00
Potential Media of Concern:	
How Discovered:	
How Discovered Description:	
Stop Method:	
Stop Description:	
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name:	San Jacinto (8-005)
Disadvantaged Community:	
Discharge Cause:	
Coordinate Source:	Google Geocode
Discharge Source:	
Facility Project Sub Type:	Title 27 - Municipal Solid Waste Landfill
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	50-55%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Regional Board Caseworker - Primary Caseworker
Contact Name:	RAY AKHTARSHAD
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	ray.akhtarshad@waterboards.ca.gov
Phone No:	

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	1999-04-01 00:00:00
Status:	Open - Case Begin Date
Status Date:	1999-04-01 00:00:00

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

GeoTracker Search - Facilities (as of June 5, 2024)

Site Facility Name:	SOIL TREATMENT, ROMOLAND
Site Facility Type:	LAND DISPOSAL SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Project Status:	
Potential COC:	NONE SPECIFIED
WDR Place Type:	
Wdr File No:	
Wdr Order No:	
Address:	27126 WATSON ROAD
City:	ROMOLAND
Zip:	92380
County:	RIVERSIDE
Cuf Claim No:	
CUF Priority Assig:	
CUF Amount Paid:	
Designated Beneficial Use:	MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Designated Beneficl Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Project Oversight Agencies:	
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=L10003942515
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 4/1/1999
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=L10003942515&tabname=regulatoryhistory
Potential Media of Concern:	NONE SPECIFIED
User Defined Beneficial Use:	
DWR GW Sub Basin:	San Jacinto (8-005)
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	
Future Land Use:	
Facility Type:	TITLE 27 - MUNICIPAL SOLID WASTE LANDFILL
Composting Method:	
Gndwater Monitoring Frequen:	
Cleanup Oversight Agencies:	SANTA ANA RWQCB (REGION 8) (LEAD) - CASE #: 8 332371001 CASE MANAGER: RAY AKHTARSHAD
File Location:	
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status:	Completed - Case Closed
Date:	4/1/1999
Status:	Open - Case Begin Date
Date:	4/1/1999

20	*2 of4*	*NW*	*0.41 / 2,140.81*	*1,424.14 / -8*	***SOIL TREATMENT, ROMOLAND*** ***27126 WATSON ROAD*** ***ROMOLAND CA 92580***	***LDS***

Global ID:	L10009809281	***RWQCB Region:***	SANTA ANA RWQCB (REGION 8)
Facility ID:	L10009809281	***Longitude:***	-117.18714
Cleanup Status:	COMPLETED - CASE CLOSED	***Latitude:***	33.750667
Site Facility Type:	LAND DISPOSAL SITE		
Address:	27126 WATSON ROAD		
City:	ROMOLAND		
County:	Riverside		
State:	CA		
Zip:	92580		

GeoTracker Sites Data Download – Site Details

RB Case No:	8 332461001
Loc Case No:	
Status:	Completed - Case Closed
Status Date:	4/1/1999
Begin Date:	4/1/1999
Case Type:	Land Disposal Site
Cal Enviroscreen:	
Qty Released Gallons:	
CUF Case:	NO
EPA Region:	9
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Manager:	
Local Agency:	
File Location:	
Potential COC:	
Military DoD Site:	No
Leak Reported Dt:	
No Further Action Dt:	1999-04-01 00:00:00
Potential Media of Concern:	
How Discovered:	
How Discovered Description:	
Stop Method:	
Stop Description:	
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name:	San Jacinto (8-005)
Disadvantaged Community:	
Discharge Cause:	
Coordinate Source:	Google Geocode
Discharge Source:	
Facility Project Sub Type:	Title 27 - Municipal Solid Waste Landfill
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	50-55%
Site History:	

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	1999-04-01 00:00:00
Status:	Open - Case Begin Date
Status Date:	1999-04-01 00:00:00

GeoTracker Search - Facilities (as of June 5, 2024)

Site Facility Name:	SOIL TREATMENT, ROMOLAND
Site Facility Type:	LAND DISPOSAL SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Project Status:	
Potential COC:	NONE SPECIFIED
WDR Place Type:	
Wdr File No:	
Wdr Order No:	
Address:	27126 WATSON ROAD
City:	ROMOLAND
Zip:	92580
County:	RIVERSIDE
Cuf Claim No:	
CUF Priority Assig:	
CUF Amount Paid:	
Designated Beneficial Use:	MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Designated Beneficl Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Project Oversight Agencies:	
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=L10009809281
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 4/1/1999
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=L10009809281&tabname=regulatoryhistory

Potential Media of Concern:	NONE SPECIFIED
User Defined Beneficial Use:	
DWR GW Sub Basin:	San Jacinto (8-005)
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	
Future Land Use:	
Facility Type:	TITLE 27 - MUNICIPAL SOLID WASTE LANDFILL
Composting Method:	
Gndwater Monitoring Frequen:	
Cleanup Oversight Agencies:	SANTA ANA RWQCB (REGION 8) (LEAD) - CASE #: 8 332461001
File Location:	
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status:	Open - Case Begin Date
Date:	4/1/1999
Status:	Completed - Case Closed
Date:	4/1/1999

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
20	3 of4	NW	0.41 / 2,140.81	1,424.14 / -8	SOIL TREATMENT, ROMOLAND 27126 WATSON ROAD ROMOLAND CA 92380	WMUD

Wmu ID No:	8 332371001	**Npid:**	
Wds ID No:	8 332371001	**Rptf:**	M
Swis ID No:		**Sic1:**	4959
Reg ID No:		**Sic2:**	
Edit Date:		**Swat Anms:**	
Last Edit:		**Swat Fnms:**	
Region:	8	**Atyp:**	PR
County:	33	**Anms:**	SOUTHWEST SOILS TECH., INC.
Wds:	TRUE	**Adep:**	
Msw:		**A Street:**	26111 YNEZ ROAD, SUITE B-12
Superorder:		**A City:**	TEMECULA CA
Sc15:	TRUE	**A Zip:**	92591
Swat:	FALSE	**A County:**	CHARLES TIPPIE
Tpca:	FALSE	**Afon:**	9096760691
Rcra:	FALSE	**Lnms:**	
Dod:		**Ldep:**	
Rbpo:		**L Street:**	
Openpub:		**L City:**	
Waste List:		**L State:**	
Tot Wmus:		**L Zip:**	
Secrange:		**L County:**	
Basemer:		**Lfon:**	
Fcnt:	CHARLES TIPPIE	**Ttwq:**	2
Fdep:		**Toxi:**	N
F State:	CA	**Cplx:**	B
Ffon:		**Wdrs:**	H
Ftyp:	IND	**Wtp1:**	DCNSOIL
Tonnage:		**Wtp2:**	
Fac Comment:			

WMU Details

Wmu ID:	8 332371001-01	**G Monitor:**	
Edit Date:		**S Monitor:**	
Last Edit:		**V Monitor:**	
Wmu Type:		**G Back:**	
Wmu Name:	SOIL TREATMENT, ROMOLAND	**S Back:**	
Wmustatus:		**V Back:**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Wmu Size:		**G Nonback:**	
Listed:		**S Nonback:**	
Printed:		**V Nonback:**	
Msw:		**G Date:**	
Superorder:		**S Date:**	
Sc15:	TRUE	**V Date:**	
Swat:	FALSE	**Perm Test:**	
Tpca:	FALSE	**Gw Depth:**	
Rcra:	FALSE	**Precip:**	
Dod:		**Site Alt:**	
Old Class:		**Site Alta:**	
Old Waste:		**Line Alt:**	
Old First:		**Line Alta:**	
New Class:		**Lcrs Alt:**	
New Waste:		**Lcrs Alta:**	
New First:		**Composite:**	
Stat Date:		**Line Des:**	
Cap Year:		**Liner1:**	
Closeplan:		**Line1 Type:**	
Township:		**Liner2:**	
Fault Name:		**Line2 Type:**	
Fault Distance:		**Liner3:**	
Withquake:		**Line3 Type:**	
Type Op:			
Gen Com1:			
Gen Com2:			
Gen Com3:			
Gen Com4:			
Formation:			
Form Type:			
Form Permit:			
Form Com1:			
Form Com2:			
Form Com3:			
Form Com4:			
Liner Com:			
Lcrs:			
Lcrs Type:			
Lcrs Des:			
Cons Com1:			
Cons Com2:			
Cons Com3:			
Cons Com4:			

20	4 of4	NW	0.41 / 2,140.81	1,424.14 / -8	**SOIL TREATMENT, ROMOLAND** **27126 WATSON ROAD** **ROMOLAND CA 92580**	WMUD

Wmu ID No:	8 332461001	**Npid:**	
Wds ID No:	8 332461001	**Rptf:**	M
Swis ID No:		**Sic1:**	4959
Reg ID No:		**Sic2:**	
Edit Date:		**Swat Anms:**	
Last Edit:		**Swat Fnms:**	
Region:	8	**Atyp:**	PR
County:	33	**Anms:**	METCO SOUTHWEST, LLC
Wds:	TRUE	**Adep:**	
Msw:		**A Street:**	PO BOX 728
Superorder:		**A City:**	BUCKEYE AZ
Sc15:	TRUE	**A Zip:**	85326
Swat:	FALSE	**A County:**	RUSSELL K. WEBB
Tpca:	FALSE	**Afon:**	6023866600
Rcra:	FALSE	**Lnms:**	
Dod:		**Ldep:**	
Rbpo:		**L Street:**	
Openpub:		**L City:**	
Waste List:		**L State:**	
Tot Wmus:	1	**L Zip:**	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Secrange:		**L County:**	
Basemer:		**Lfon:**	
Fcnt:	RUSSELL K. WEBB	**Ttwq:**	2
Fdep:		**Toxi:**	N
F State:	CA	**Cplx:**	B
Ffon:		**Wdrs:**	H
Ftyp:	IND	**Wtp1:**	HCNSOIL
Tonnage:		**Wtp2:**	
Fac Comment:			

WMU Details

Wmu ID:	8 332461001-01	**G Monitor:**	
Edit Date:	06-Jul-2000	**S Monitor:**	
Last Edit:	palaskaz	**V Monitor:**	
Wmu Type:		**G Back:**	
Wmu Name:	SOIL TREATMENT, ROMOLAND	**S Back:**	
Wmustatus:		**V Back:**	
Wmu Size:		**G Nonback:**	
Listed:		**S Nonback:**	
Printed:		**V Nonback:**	
Msw:		**G Date:**	
Superorder:		**S Date:**	
Sc15:	TRUE	**V Date:**	
Swat:	FALSE	**Perm Test:**	
Tpca:	FALSE	**Gw Depth:**	
Rcra:	FALSE	**Precip:**	
Dod:		**Site Alt:**	
Old Class:		**Site Alta:**	
Old Waste:		**Line Alt:**	
Old First:		**Line Alta:**	
New Class:		**Lcrs Alt:**	
New Waste:		**Lcrs Alta:**	
New First:		**Composite:**	
Stat Date:		**Line Des:**	
Cap Year:		**Liner1:**	
Closeplan:		**Line1 Type:**	
Township:		**Liner2:**	
Fault Name:		**Line2 Type:**	
Fault Distance:		**Liner3:**	
Withquake:		**Line3 Type:**	
Type Op:			
Gen Com1:	2-18-99 (NOV, FAILURE TO SUBMIT WDR REPORTS+ 4000.00 ANNUAL FEE)		
Gen Com2:			
Gen Com3:			
Gen Com4:			
Formation:			
Form Type:			
Form Permit:			
Form Com1:			
Form Com2:			
Form Com3:			
Form Com4:			
Liner Com:			
Lcrs:			
Lcrs Type:			
Lcrs Des:			
Cons Com1:			
Cons Com2:			
Cons Com3:			
Cons Com4:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
21	1 of1	WNW	0.42 / 2,199.72	1,424.56 / -8	DAN COPP CRUSHING CORP - SUN CITY 27050 WATSON RD SUN CITY CA 92585	C&D DEBRIS RECY

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
					County: RIVERSIDE	
					Activity Type: C&D PROCESSING **Phone No:** (800) 386-7748	
22	1 of1	N	0.46 / 2,429.16	1,433.48 / 1	**United Parcel Service** **25283 Sherman Way** **Romoland CA**	LOP RIVERSIDE

Site ID: 91867
Status Code: 9
Status Desc: CLOSED/ACTION COMPLETED
Case Type Code: S
Case Type Desc: SOIL ONLY IS IMPACTED
Closed Code: Y
Closed Desc: CLOSED SITE
Employee: Whitehead

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
23	1 of1	NNW	0.46 / 2,437.60	1,425.03 / -7	**ASPHALT AND CONCRETE RECYCLING OF PERRIS** **25630 TRUMBLE RD** **ROMOLAND CA 92585**	C&D DEBRIS RECY
					County: RIVERSIDE	
					Activity Type: C&D PROCESSING **Phone No:** (951) 928-0717	
24	1 of2	NNW	0.47 / 2,496.48	1,424.54 / -8	**Former Lakeside Chevrolet** **25351 Trumble Road** **ROMOLAND CA 92585-9664**	FED BROWNFIELDS

Property ID: 105141
Lat Measure: 33.7523377
Long Measure: -117.18516879999998
Property Name: Former Lakeside Chevrolet
Address: 25351 Trumble Road
City: ROMOLAND
State Code: CA
Zip Code: 92585-9664
Primary Name (Map): LAKESIDE CHEVROLET
Location Address (Map): 25351 TRUMBLE RD
City Name (Map): ROMOLAND
County Name (Map): RIVERSIDE
State Code (Map): CA
Postal Code (Map): 92585
Data Source: Cleanups in My Community (CIMC) Cleanups and Grants Listing Export - Brownfield Properties; Cleanups in My Community (CIMC) Web Application - Brownfield Properties (Map)
County: RIVERSIDE
Latitude (Map): 33.7523377
Longitude (Map): -117.1851688

Property Details (Cleanups in My Community)

ID No:
NFA Letter Date:
Media Affected: Soil
Media Cleaned Up: Soil
Contaminants REC: Petroleum Products
Contams Actionable: Petroleum Products
Contams < Actionble:
Contamnts Cleanup: Petroleum Products
Tanks Removal:
Cleanup Needed: Y
Cleanup Treatment:
Excavation Disposl:
Contams Extractn:
Reduc Contams:
Additional Clnup:
Institutional Cleanup: N
Size Acres: 5.
Parcel No: 329-020-009 & 329-020-22
Property Enrolled: Y
Radius: .5
Census Tract: 06065042730
2010 # Below Poverty: 97.
2010 Below Poverty: 29.94
2010 Median Income: 1436.
2010 No Low Income: 195.
2010 Low Income: 60.19
2010 No Vacant Hous: 7.
2010 Vacant Housing: 7.6
2010 # Unemployed: 28.
2010 Unemployed: 8.64
Tech Capping:
Secur Guard Fence:

Institutional Cleanup:		***Immobilization:***	
Engineering Needed:	N	***Eng Barriers:***	
Eng Control:		***Proprietary Cntrl:***	
Additnl Inst Control:		***Info Device:***	
Additnl Eng Control:		***Govt Cntrl:***	
Inst Control Date:		***Enf Permit Tool:***	
Eng Control Date:		***Clnup Struct Remov:***	
Property Alias:			
Property Owner:			
Address Source URL:			
Address Source URL:			
Address Source URL:			
Other:			

Activity Details(Cleanups in My Community)

Coop Agmt No:	00T15701	***Redev Actvy Funded:***	
Program Name:	2B	***Redev Start Dt:***	
Activity Funded:		***Redev Compl date:***	
Type CA Fund:	Petroleum	***Redev Fund Entity:***	
Funding Entity:	Redevelopment Agency	***Redev Residential:***	
Assessmnt Start Dt:	06/26/2009	***Redev Greenspace:***	
Assessmnt Compl Dt:	03/01/2010	***Redev Industrial:***	
Clnup Actvy Start Dt:		***Redev Commercial:***	
Clnup Actvy Comp Dt:		***# of Redev Jobs:***	
Acres Cleaned Up:		***RLF Signed Dt:***	
Clnup Funding Src:		***RLF Intest Rate:***	
Clnup Entity Provid:		***RLF EPA Fund:***	
Signed Rpt Dt:		***RLF Cost Share:***	
Direct Clnup Tot Fnd:		***RLF Prog Income:***	
Direct Clnup Fnd Src:		***RLF Lvg Fund Src:***	
Fund Amt Expnded:		***RLF Lvg Fund Entity:***	
Source of Funding:	Local Funding	***RLF Lvg Fund Amt:***	
Past Use Resiential:		***RLF Subgrant Signed:***	
Past Use Greenspace:		***Subgrant EPA Fund:***	
Past Use Industrial:		***Subgrant Cost Shr:***	
Past Use Commercial:			
Coop Agmt Recipnt:	Redevelopment Agency for the County of Riverside		
Clnup Compet Doc2:			
Climate Adapt Mitg1:			
Climate Adapt Mitg2:			

Activity Details(Cleanups in My Community)

Coop Agmt No:	00T15701	***Redev Actvy Funded:***	
Program Name:	2B	***Redev Start Dt:***	
Activity Funded:		***Redev Compl date:***	
Type CA Fund:	Petroleum	***Redev Fund Entity:***	
Funding Entity:		***Redev Residential:***	
Assessmnt Start Dt:		***Redev Greenspace:***	
Assessmnt Compl Dt:		***Redev Industrial:***	
Clnup Actvy Start Dt:		***Redev Commercial:***	
Clnup Actvy Comp Dt:		***# of Redev Jobs:***	
Acres Cleaned Up:		***RLF Signed Dt:***	
Clnup Funding Src:		***RLF Intest Rate:***	
Clnup Entity Provid:		***RLF EPA Fund:***	
Signed Rpt Dt:		***RLF Cost Share:***	
Direct Clnup Tot Fnd:		***RLF Prog Income:***	
Direct Clnup Fnd Src:		***RLF Lvg Fund Src:***	
Fund Amt Expnded:		***RLF Lvg Fund Entity:***	
Source of Funding:		***RLF Lvg Fund Amt:***	
Past Use Resiential:		***RLF Subgrant Signed:***	
Past Use Greenspace:		***Subgrant EPA Fund:***	
Past Use Industrial:		***Subgrant Cost Shr:***	
Past Use Commercial:			
Coop Agmt Recipnt:	Redevelopment Agency for the County of Riverside		
Clnup Compet Doc2:			

Climate Adapt Mitg1:
Climate Adapt Mitg2:

Activity Details(Cleanups in My Community)

Coop Agmt No:	00T15701	***Redev Actvy Funded:***	
Program Name:	2B	***Redev Start Dt:***	
Activity Funded:		***Redev Compl date:***	
Type CA Fund:	Petroleum	***Redev Fund Entity:***	
Funding Entity:		***Redev Residential:***	
Assessmnt Start Dt:		***Redev Greenspace:***	
Assessmnt Compl Dt:		***Redev Industrial:***	
Clnup Actvy Start Dt:	06/26/2009	***Redev Commercial:***	
Clnup Actvy Comp Dt:	04/19/2011	***# of Redev Jobs:***	
Acres Cleaned Up:	5.	***RLF Signed Dt:***	
Clnup Funding Src:	EPA	***RLF Intest Rate:***	
Clnup Entity Provid:	US EPA - Brownfields Cleanup Cooperative Agreement	***RLF EPA Fund:***	
Signed Rpt Dt:		***RLF Cost Share:***	
Direct Clnup Tot Fnd:		***RLF Prog Income:***	
Direct Clnup Fnd Src:		***RLF Lvg Fund Src:***	
Fund Amt Expnded:		***RLF Lvg Fund Entity:***	
Source of Funding:		***RLF Lvg Fund Amt:***	
Past Use Resiential:		***RLF Subgrant Signed:***	
Past Use Greenspace:		***Subgrant EPA Fund:***	
Past Use Industrial:		***Subgrant Cost Shr:***	
Past Use Commercial:			
Coop Agmt Recipnt:	Redevelopment Agency for the County of Riverside		
Clnup Compet Doc2:			
Climate Adapt Mitg1:			
Climate Adapt Mitg2:			

Brownfields Details

Registry I:	110006469981	***SF El He C:***	
EPA ID:		***SF IC Ind:***	
EPA Region:	09	***SF NPL Cod:***	
Cat No:	18070202	***SF NPL C 1:***	
RCRA Handl:		***FF SF Ind:***	
RCRA Curre:		***Map Symbol:***	B
RCRA Remed:		***Data Refre:***	04-Feb-2024
RCRA Const:		***New Site:***	
RCRA El He:		***BF RLF Gra:***	
RCRA El Gm:		***BF RLF Pil:***	
RCRA Rem 1:		***BF Assess :***	
RCRA Ec Gw:		***BF Cleanup:***	Y
RCRA Ec Ng:		***BF Tba Ind:***	
RCRA IC Ep:		***BF 128a In:***	
RCRA IC Gc:		***BF IC Code:***	N
RCRA IC ID:		***BF IC Gc I:***	U
RCRA IC Pr:		***BF IC Ep I:***	U
FF RCRA In:		***BF IC ID I:***	U
RCRA Ec Co:		***BF IC Pr I:***	U
RCRA IC Co:		***BF Assess1:***	
RCRA Gpra :		***BF Multipu:***	
RCRA Rem 2:		***BF Awp Ind:***	
RCRA Dru 1:		***BF Showcas:***	
SF Site ID:		***BF 128a P :***	
SF Ec Ind:		***Congressio:***	CA-41
SF El Gm C:		***Stimulus B:***	Y
Ind Name:			
Cat Name:	San Jacinto		
Sub Name:	San Jacinto		
Primary Name:	LAKESIDE CHEVROLET		
RCRA Drupa:			
Repow Ref :	https://cimc.epa.gov/ords/cimc/f?p=CIMC:REPOWER:::::P33_REF:5565		
Url:	https://obipublic11.epa.gov/analytics/saw.dll?PortalPages&Action=Navigate&col1=ACRES_GRANT_EXPORT.		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

	PROPERTY_ID&val1=%22105141.0%22&PortalPath=/shared/CIMC/_portal/CIMC&Page=Profile+Page
Census Url:	https://ejscreen.epa.gov/mapper/demogreportpdf.aspx?report=census2010sf1&coords=-117.1851688%2C33.7523377&feattype=point&radius=1.0
ACS Url:	https://ejscreen.epa.gov/mapper/demogreportpdf.aspx?report=acs2017&coords=-117.1851688%2C33.7523377&feattype=point&radius=1.0
SAA Site:	
Sf Brac Ty:	
Sf Archive:	
Sf Ffdocke:	
Sf Npl C 3:	
Sf Npl C 2:	
Sf Npl C 1:	
SF Site Na:	
SF Non N 1:	
SF Non N 2:	
SF Non N 3:	
SF Non Npl:	
BF Prope 1:	Former Lakeside Chevrolet
RCRA Han 1:	
RCRA Rau I:	
REPOW BF:	SG
REPOW Re 1:	RE-Powering Site Profile
REPOW Ref1:	5565

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
24	2 of2	NNW	0.47 / 2,496.48	1,424.54 / -8	TRUMBLE RD 25351 TRUMBLE RD MENIFEE CA 92585	CLEANUP SITES

Global ID:	T10000009963	**Site Facility Type:**	CLEANUP PROGRAM SITE
Site Fac Type (SRCH):	CLEANUP PROGRAM SITE	**Case Type (DL):**	Cleanup Program Site
Status (SRCH):	COMPLETED - CASE CLOSED	**RWQCB Region (DL):**	SANTA ANA RWQCB (REGION 8)
Status (DL):	Completed - Case Closed	**Census Tract (SRCH):**	6065042730
Status Date (DL):	8/11/2011	**Latitude (DL):**	33.75288
Cleanup Status:	COMPLETED - CASE CLOSED	**Longitude (DL):**	-117.18575

Site Facility Name (SRCH):	TRUMBLE RD
Address (SRCH):	25351 TRUMBLE RD
City (SRCH):	MENIFEE
Zip (SRCH):	92585
County (SRCH):	RIVERSIDE
Street No (DL):	25351
Street Name (DL):	Trumble Rd
City (DL):	Menifee
Zip (DL):	92585
County (DL):	Riverside
State (DL):	CA
Site Facility Name :	TRUMBLE RD
Address :	25351 TRUMBLE RD
City :	MENIFEE
Zip :	92585
County :	RIVERSIDE
Report Source:	GeoTracker Search Results (SRCH); GeoTracker Sites Data Download (DL); GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

RB Case No:	
Local Case No:	CO0025039
Begin Date:	5/14/2008
Lead Agency:	RIVERSIDE COUNTY LOP
Local Agency:	RIVERSIDE COUNTY LOP
CUF Case:	NO
CalEnvScreen Score:	
EPA Region:	9
Qty Rlsd Gallons:	
Potential COC:	Total Petroleum Hydrocarbons (TPH), Waste Oil / Motor / Hydraulic / Lubricating
How Discovered:	

Stop Method:	
Stop Description:	Previous businesses no longer in operation.
Case Worker:	SCB
Military DoD Site:	No
Leak Reported Dt:	2008-06-04 00:00:00
No Further Action Dt:	2011-08-11 00:00:00
Potential Media of Concern:	Soil
How Discovered Description:	
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name:	San Jacinto (8-005)
Disadvantaged Community:	Disadvantaged Community
Coordinate Source:	
Discharge Cause:	Unknown
Discharge Source:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	55-60%
File Location:	
Site History:	

Site previously used as automotive service, car dealership, paint booths, etc. As of 2011, site is vacant lot. See file for assessment and cleanup details.

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	2011-08-11 00:00:00
Status:	Open - Active
Status Date:	2008-06-11 00:00:00
Status:	Open - Case Begin Date
Status Date:	2008-05-14 00:00:00

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivco.org
Phone No:	9519558980

GeoTracker Search - Facilities (as of June 5, 2024)

Project Status:	
Cuf Claim No:	
CUF Priority Assign:	
CUF Amount Paid:	
Composting Method:	
Facility Type:	
WDR Place Type:	
WDR File No:	
WDR Order No:	
File Location:	
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Designated Beneficl Use Desc:	Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Project Oversight Agencies:	
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000009963
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 8/11/2011
Potential COC:	TOTAL PETROLEUM HYDROCARBONS (TPH), WASTE OIL / MOTOR / HYDRAULIC / LUBRICATING
Potential Media of Concern:	SOIL
Groundwater Monitoring Freq:	

DWR GW Sub Basin:	San Jacinto (8-005)
CalWater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management:	NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use:	VACANT
Cleanup Oversight Agencies:	RIVERSIDE COUNTY LOP (LEAD) - CASE #: CO0025039 CASE MANAGER: SHARON BOLTINGHOUSE SANTA ANA RWQCB (REGION 8)
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include? global_id=T10000009963&tabname=regulatoryhistory
Site History:	

Site previously used as automotive service, car dealership, paint booths, etc. As of 2011, site is vacant lot. See file for assessment and cleanup details.

GeoTracker Search - Cleanup Action Report (as of June 5, 2024)

Action Type:	EXCAVATION
Begin Date:	1/1/2009
End Date:	11/1/2010
Phase:	Soil
Contaminant Mass Removed:	1,235 Tons
Description:	1235 cu yd impacted soil excavated, treated on-site, and re-used on-site.

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type:	Other Regulatory Actions
Action:	Closure/No Further Action Letter - #Closure letter
Action Date:	8/11/2011
Received Issue Date:	8/11/2011
Doc Link:	https://geotracker.waterboards.ca.gov/view_documents? global_id=T10000009963&enforcement_id=6306416&temptable=ENFORCEMENT
Title Description Comments:	

RCDEH issued NFA letter dated 4/25/2011

Action Type:	Other Regulatory Actions
Action:	File review - #RCDEH site file
Action Date:	8/10/2011
Received Issue Date:	8/10/2011
Doc Link:	https://geotracker.waterboards.ca.gov/view_documents? global_id=T10000009963&enforcement_id=6306409&temptable=ENFORCEMENT
Title Description Comments:	

RCDEH site file uploaded to GT on 03/31/2017

Action Type:	Other Regulatory Actions
Action:	File review - #Site Docs
Action Date:	8/10/2011
Received Issue Date:	8/10/2011
Doc Link:	https://geotracker.waterboards.ca.gov/view_documents? global_id=T10000009963&enforcement_id=6306413&temptable=ENFORCEMENT
Title Description Comments:	

RCDEH upload misc site docs

Action Type:	Cleanup Action
Action:	Excavation
Action Date:	1/1/2009
Received Issue Date:	
Doc Link:	
Title Description Comments:	

1235 cu yd impacted soil excavated, treated on-site, and re-used on-site.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action Type: Leak Action
Action: Leak Discovery
Action Date: 6/4/2008
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported
Action Date: 6/4/2008
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Stopped
Action Date: 6/4/2008
Received Issue Date:
Doc Link:
Title Description Comments:

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents
Document Date: 8/11/2011
Type: CLOSURE/NO FURTHER ACTION LETTER
Submitted:
Submitted By: SHARON BOLTINGHOUSE (REGULATOR)
Title: RCDEH ISSUED NFA LETTER DATED 4/25/2011
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T10000009963&enforcement_id=6306416

Document Type: Site Documents
Document Date: 8/10/2011
Type: FILE REVIEW
Submitted:
Submitted By: SHARON BOLTINGHOUSE (REGULATOR)
Title: RCDEH SITE FILE UPLOADED TO GT ON 03/31/2017
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T10000009963&enforcement_id=6306409

Document Type: Site Documents
Document Date: 8/10/2011
Type: FILE REVIEW
Submitted:
Submitted By: SHARON BOLTINGHOUSE (REGULATOR)
Title: RCDEH UPLOAD MISC SITE DOCS
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T10000009963&enforcement_id=6306413

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date: 8/11/2011

Status: Open - Active
Date: 6/11/2008

Status: Open - Case Begin Date
Date: 5/14/2008

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
25	1 of1	N	0.48 / 2,517.06	1,429.50 / -3	UNITED PARCEL SERVICE 25283 SHERMAN RD ROMOLAND CA 92380	LUST

Global ID: T0606500219
Site Facility Type: LUST CLEANUP SITE
Site Fac Type (SRCH): LUST CLEANUP SITE
Status:
Status (SRCH): COMPLETED - CASE CLOSED
Status (DL): Completed - Case Closed
Status Date (DL): 8/29/1991
Case Type (DL): LUST Cleanup Site
Oil Field (SRCH):
Oil Field Oper (SRCH):
Census Tract (SRCH): 6065042730
Latitude (DL): 33.7538351262906
Longitude (DL): -117.182040865884
RWQCB Region (DL): SANTA ANA RWQCB (REGION 8)

Cleanup Status:	COMPLETED - CASE CLOSED
Site Facility Name (SRCH):	UNITED PARCEL SERVICE
Address (SRCH):	25283 SHERMAN RD
City (SRCH):	ROMOLAND
Zip (SRCH):	92380
County (SRCH):	RIVERSIDE
Street No (DL):	25283
Street Name (DL):	SHERMAN RD
City (DL):	ROMOLAND
Zip (DL):	92380
County (DL):	Riverside
State (DL):	CA
Business Name (DL):	UNITED PARCEL SERVICE
Site Facility Name:	UNITED PARCEL SERVICE
Address :	25283 SHERMAN RD
City :	ROMOLAND
Zip :	92380
County :	RIVERSIDE
Report Source:	GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

CUF Case:	NO
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	RIV
Local Agency:	RIVERSIDE COUNTY LOP
RB Case No:	083301733T
Local Case No:	91867
File Location:	Local Agency Warehouse
Potential COC:	Gasoline
Potential Media of Concern:	Soil
Begin Date:	4/15/1991
How Discovered:	Tank Closure
How Discovered Description:	
Stop Method:	Close and Remove Tank
Stop Description:	
Calwater Watershed Name:	San Jacinto Valley - Perris - Perris Valley (802.11)
DWR GW Subbasin Name:	San Jacinto (8-005)
Disadvantaged Community:	
CalEnvScreen Score:	
Coordinate Source:	Google Map Move
Discharge Cause:	Unknown
Discharge Source:	Other
EPA Region:	9
Leak Reported Dt:	1991-04-23 00:00:00
Military DoD Site:	No
No Further Action Dt:	1991-08-29 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	55-60%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	
Phone No:	9519558980

Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)

Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: patricia.hannon@waterboards.ca.gov
Phone No:

GeoTracker Sites Data Download - Status History

Status: Completed - Case Closed
Status Date: 8/29/1991

Status: Open - Case Begin Date
Status Date: 4/15/1991

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name: UNITED PARCEL SERVICE
Site Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Address: 25283 SHERMAN RD
City: ROMOLAND
Zip: 92380
County: RIVERSIDE
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500219
Cleanup Status Detail: COMPLETED - CASE CLOSED AS OF 8/29/1991
Project Status:
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0606500219&tabname=regulatoryhistory
Potential COC: GASOLINE
Potential Media of Concern: SOIL
File Location: LOCAL AGENCY WAREHOUSE
User Defined Beneficial Use:
Designated Beneficial Use: MUN, AGR, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
DWR GW Sub Basin: San Jacinto (8-005)
Calwater Watershed Name: San Jacinto Valley - Perris - Perris Valley (802.11)
Post Closure Site Management: NOTIFY PRIOR TO CHANGE IN LAND USE
Future Land Use: COMMERCIAL
Cleanup Oversight Agencies: RIVERSIDE COUNTY LOP (LEAD) - CASE #: 91867
CASE MANAGER: Riverside County LOP
SANTA ANA RWQCB (REGION 8) - CASE #: 083301733T
CASE MANAGER: PATRICIA HANNON
CUF Claim No:
CUF Priority Assig:
CUF Amount Paid:
WDR Place Type:
WDR File No:
WDR Order No:
Project Oversight Agencies:
Facility Type:
Composting Method:
Grndwtr Monitoring Frequency:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, 8 - Note: Also incl parts of 802.12 - Note: Also incl parts of 802.12, and 802.13.
Site History:

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 8/29/1991

Status: Open - Case Begin Date
Date : 4/15/1991

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter - #Riv Co Closure
Action Date: 8/29/1991
Received Issue Date: 8/29/1991
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500219&enforcement_id=6001611&temptable=ENFORCEMENT
Title Description Comments:

Riv Co Site Closure

Action Type: Other Regulatory Actions
Action: File review - #RCDEH Upload Site File 9/30/2015
Action Date: 8/28/1991
Received Issue Date: 8/28/1991
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500219&enforcement_id=6071312&temptable=ENFORCEMENT
Title Description Comments:

RCDEH Upload Site File 9/30/2015

Action Type: Leak Action
Action: Leak Stopped
Action Date: 4/23/1991
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported
Action Date: 4/23/1991
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 4/15/1991
Received Issue Date:
Doc Link:
Title Description Comments:

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents ***Document Date:*** 8/29/1991
Type: CLOSURE/NO FURTHER ACTION LETTER ***Submitted:***
Submitted By: RIVERSIDE COUNTY LOP (REGULATOR)
Title: RIV CO SITE CLOSURE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500219&enforcement_id=6001611

Document Type: Site Documents ***Document Date:*** 8/28/1991
Type: FILE REVIEW ***Submitted:***
Submitted By: LINDA SHURLOW (REGULATOR)
Title: RCDEH UPLOAD SITE FILE 9/30/2015
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=T0606500219&enforcement_id=6071312

26	1 of2	E	0.51 / 2,677.30	1,448.55 / 16	***HIGH SCHOOL NO. 3*** ***BRIGGS ROAD/PINACATE ROAD*** ***ROMOLAND CA 92585***	***SCH***

Estor/EPA ID: 33010072 ***Acres:*** 60 ACRES
Nat Priority List: NO ***Supervisor:*** JAVIER HINOJOSA
Census Tract: 6065042730 ***County:*** RIVERSIDE

Permit Renewl Lead: ***Latitude:*** 33.744518
Project Manager: ***Longitude:*** -117.171899
Site Code: 404438
Cleanup Status: NO FURTHER ACTION AS OF 3/19/2003
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
Assembly District: 63
Senate District: 31
School District: PERRIS UNION HIGH SCHOOL DISTRICT
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Public Participatn Spclst:
Special Program:
Funding: SCHOOL DISTRICT
Site Type: SCHOOL
APN: NONE SPECIFIED
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

ORGANOCHLORINE PESTICIDES (8081 OCPS)
PETROLEUM
POLYCHLORINATED BIPHENYLS (8082 PCBS)
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)

SITE HISTORY:

The approximately 60-acre site is surrounded predominantly by vacant or agricultural land. The site has been historically utilized for agricultural purposes, indicating the potential application of pesticides/chemicals.

Status: NO FURTHER ACTION
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 55-60%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33010072

Completed Activities

Title: * Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6004000
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Workplan
Date Completed: 12/29/2003
Comments:

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&enforcement_id=6003998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 3/19/2003
Comments:

Title: Preliminary Endangerment Assessment Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6003999
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 9/15/2004
Comments:

Title: Phase 1 Draft
Title Link:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 3/2/2003
Comments: Phase 1 Draft

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
26	2 of2	E	0.51 / 2,677.30	1,448.55 / 16	HIGH SCHOOL NO. 3 BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585	ENVIROSTOR

Estor/EPA ID: 33010072
Site Code: 404438
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6065042730
Site Type: SCHOOL
Address Description: BRIGGS ROAD/PINACATE ROAD
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 63
Senate District: 31
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: RIVERSIDE
Latitude: 33.744518
Longitude: -117.171899
Acres: 60 ACRES
Supervisor: JAVIER HINOJOSA
Cleanup Status: NO FURTHER ACTION AS OF 3/19/2003
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
School District: PERRIS UNION HIGH SCHOOL DISTRICT
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

ORGANOCHLORINE PESTICIDES (8081 OCPS)
PETROLEUM
POLYCHLORINATED BIPHENYLS (8082 PCBS)
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)

Site History:

The approximately 60-acre site is surrounded predominantly by vacant or agricultural land. The site has been historically utilized for agricultural purposes, indicating the potential application of pesticides/chemicals.

Status: NO FURTHER ACTION
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 55-60%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=33010072

Completed Activities

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&enforcement_id=6003998
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 3/19/2003
Comments:

Title: * Workplan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6004000
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Workplan
Date Completed: 12/29/2003
Comments:

Title:	Preliminary Endangerment Assessment Report
Title Link:	https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=33010072&doc_id=6003999
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Preliminary Endangerment Assessment Report
Date Completed:	9/15/2004
Comments:	

Title:	Phase 1 Draft
Title Link:	
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Phase 1
Date Completed:	3/2/2003
Comments:	Phase 1 Draft

Unplottable Summary

Total: 0 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID

No unplottable records were found that may be relevant for the search criteria.

Unplottable Report

No unplottable records were found that may be relevant for the search criteria.

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

National Priority List - Proposed: PROPOSED NPL

Sites proposed by the United States Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. 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. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

SEMS List 8R Active Site Inventory: SEMS

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the EPA's Facility Registry Service map tool.

Government Publication Date: May 22, 2024

SEMS List 8R Archive Sites: SEMS ARCHIVE

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

Government Publication Date: May 22, 2024

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means 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 this site on the National Priorities List (NPL). This 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 a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is the U.S. Environmental Protection Agency's (EPA) 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. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Apr 8, 2024

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is the U.S. Environmental Protection Agency's (EPA) 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. This database includes Non-Corrective Action sites that have indicated engagement in the treatment, storage, or disposal of hazardous waste which requires a RCRA hazardous waste permit.

Government Publication Date: Apr 8, 2024

RCRA Generator List: RCRA LQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) 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. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Apr 8, 2024

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) 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. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Apr 8, 2024

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) 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. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Apr 8, 2024

RCRA Non-Generators: RCRA NON GEN

RCRA Info is the U.S. Environmental Protection Agency's (EPA) 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. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Apr 8, 2024

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Apr 8, 2024

Federal Engineering Controls-ECs: FED ENG

List of Engineering controls (ECs) made availabe by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 26, 2024

Federal Institutional Controls- ICs: FED INST

List of Institutional controls (ICs) made available by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 26, 2024

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: Apr 22, 2024

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Apr 28, 2024

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

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 protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

Government Publication Date: Feb 7, 2024

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

This listing contains facilities that have submitted Facility Response Plans (FRPs) to the U.S. Environmental Protection Agency (EPA). Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs. Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments. This listing includes FRP facilities from an applicable EPA FOIA file and Homeland Infrastructure Foundation-Level Data (HIFLD) data file.

Government Publication Date: Jan 9, 2024

Delisted Facility Response Plans: DELISTED FRP

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Jan 9, 2024

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

This list of petroleum refineries is sourced from the U.S. Energy Information Administration (EIA), Refinery Capacity Report. The listing includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year. The geographic area the report covers is the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, and other U.S. possessions. Per the EIA, the facility location data represents the approximate location based on research of publicly available information from sources such as Federal agencies, company websites, and satellite images on public websites.

Government Publication Date: Jun 6, 2024

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

A list of petroleum product and crude oil rail terminals from the U.S. Energy Information Administration (EIA), as well as petroleum terminals sourced from the Federal Communications Commission Data hosted by the Homeland Infrastructure Foundation-Level Database. Data includes operable bulk petroleum product terminals with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil with activity between 2017 and 2018. EIA petroleum product terminal data comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings.

Government Publication Date: Jun 6, 2024

LIEN on Property: SEMS LIEN

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

Government Publication Date: May 22, 2024

Superfund Decision Documents: SUPERFUND ROD

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

Government Publication Date: Mar 27, 2024

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Jun 25, 2024

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.

Government Publication Date: Jun 25, 2024

Delisted State Response Sites: DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Jun 25, 2024

Solid Waste Information System (SWIS): SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: Aug 8, 2024

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels: SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Waste Management Unit Database: WMUD

The Waste Management Unit Database System tracks and inventories waste management units. CCR Title 27 contains criteria stating that Waste Management Units are classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. Water Code Section 13273.1 requires that operators submit a water quality solid waste assessment test (SWAT) report to address leak status. The WMUDS was last updated by the State Water Resources control board in 2000.

Government Publication Date: Jan 1, 2000

EnviroStor Hazardous Waste Facilities: HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Jun 25, 2024

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report: SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Construction and Demolition Debris Recyclers: C&D DEBRIS RECY

This listing of Construction and Demolition Debris Recyclers is maintained by the California Intergrated Waste Management Board-common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development.

Government Publication Date: Jun 20, 2018

Recycling Centers: RECYCLING

This list of Certified Recycling Centers that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 15, 2024

Listing of Certified Processors: PROCESSORS

This list of Certified Processors that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 9, 2024

Listing of Certified Dropoff, Collection, and Community Service Programs: CONTAINER RECY

This list of Certified Dropoff, Collection, and Community Service Programs (non-buyback) operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 15, 2024

Land Disposal Sites: LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Jul 4, 2024

Leaking Underground Fuel Tank Reports: LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Government Publication Date: Jul 4, 2024

Delisted Leaking Storage Tanks: DELISTED LST

List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.

Government Publication Date: Jul 22, 2024

Permitted Underground Storage Tank (UST) in GeoTracker: UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Jun 11, 2024

Proposed Closure of Underground Storage Tank Cases: UST CLOSURE

This listing includes Proposed Closure of Underground Storage Tank (UST) Cases which are being considered for closure by either the State Water Resources Control Board at a Future Board Meeting or the Executive Director that have been posted for a 60-day public comment period, and Closure of UST Cases with Closure Denials and Approved Orders. The lists are provided by the California Water Boards.

Government Publication Date: Jul 22, 2024

Historical Hazardous Substance Storage Information Database: HHSS

The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.

Government Publication Date: Aug 27, 2015

Statewide Environmental Evaluation and Planning System: UST SWEEPS

The Statewide Environmental Evaluation and Planning System (SWEEPS) is a historical listing of active and inactive underground storage tanks made available by the California State Water Resources Control Board (SWRCB).

Government Publication Date: Oct 1, 1994

Aboveground Storage Tanks: AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

SWRCB Historical Aboveground Storage Tanks: AST SWRCB

A list of aboveground storage tanks made available by the California State Water Resources Control Board (SWRCB). Effective January 1, 2008, the Certified Unified Program Agencies (CUPAs) are vested with the responsibility and authority to implement the Aboveground Petroleum Storage Act (APSA).

Government Publication Date: Dec 1, 2007

Oil and Gas Facility Tanks: TANK OIL GAS

Locations of oil and gas tanks that fall under the jurisdiction of the Geologic Energy Management Division of the California Department of Conservation (CalGEM) (CCR 1760). CalGEM was formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR).

Government Publication Date: Aug 7, 2024

Delisted Storage Tanks: DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: Aug 7, 2024

California Environmental Reporting System (CERS) Tanks: CERS TANK

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. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Jul 25, 2024

Delisted California Environmental Reporting System (CERS) Tanks: DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Jul 25, 2024

Historical Hazardous Substance Storage Container Information - Facility Summary: HIST TANK

The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in th 1980s. This facility summary lists historic tank sites where the following container types were present: farm motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (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 land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Jun 25, 2024

CALSITES Database: CALSITES

This historical database was maintained by the Department of Toxic Substance Control (DTSC) for more than a decade. CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. In 2006, DTSC introduced EnviroStor as the latest Brownfields site database.

Government Publication Date: May 1, 2004

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (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.

Government Publication Date: Feb 18, 2021

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Jul 4, 2024

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Jun 25, 2024

GeoTracker Cleanup Program Sites: CLEANUP SITES

A list of Cleanup Program sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Jul 4, 2024

Delisted Cleanup Program Sites: DELISTED CLEANUP

A list of Cleanup Program sites which were once included - and have since been removed from - the list of Cleanup Program Sites in GeoTracker. GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Government Publication Date: Jul 4, 2024

Delisted County Records: DELISTED COUNTY

Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.

Government Publication Date: Jul 24, 2024

Tribal

Leaking Underground Storage Tanks on Tribal/Indian Lands: INDIAN LUST

This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 9, which includes California, is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 7, 2024

Underground Storage Tanks on Tribal/Indian Lands: INDIAN UST

This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 9, which includes California, is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 7, 2024

Delisted Tribal Leaking Storage Tanks: DELISTED INDIAN LST

Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 7, 2024

Delisted Tribal Underground Storage Tanks: DELISTED INDIAN UST

Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 7, 2024

County

Riverside County - Local Oversight Program List: LOP RIVERSIDE

A list of Leaking Underground Storage Tank (LUST) facilities in Riverside County. This list is made available by Riverside County Department of Environmental Health. Environmental Cleanup Program provides oversight of assessments and cleanups at properties that have been, or may have been, contaminated with hazardous substances from LUSTs or releases associated with other commercial/industrial use.

Government Publication Date: Feb 6, 2024

Riverside County - Underground Storage Tanks List: UST RIVERSIDE

A list of registered Underground Storage Tank (UST) sites in Riverside County. This list is made available by Riverside County Department of Environmental Health. The Hazardous Materials Management Branch (HMMB) regulates and oversees the inspections of constructions, repairs, upgrades, system operation and removal of UST systems.

Government Publication Date: Feb 6, 2024

Additional Environmental Record Sources

Federal

PFAS Greenhouse Gas Emissions Data: PFAS GHG

The U.S. Environmental Protection Agency's Greenhouse Gas Reporting Program (GHGRP) collects Greenhouse Gas (GHG) data from large emitting facilities (25,000 metric tons of carbon dioxide equivalent (CO2e) per year), and suppliers of fossil fuels and industrial gases that results in GHG emissions when used. Includes GHG emissions data for facilities that emit or have emitted since 2010 chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures by DSSTox. PFAS emissions data has been identified for facilities engaged in the following industrial processes: Aluminum Production (GHGRP Subpart F), HCFC-22 Production and HFC-23 Destruction (Subpart O), Electronics Manufacturing (Subpart I), Fluorinated Gas Production (Subpart L), Magnesium Production (Subpart T), Electrical Transmission and Distribution Equipment Use (Subpart DD), and Manufacture of Electric Transmission and Distribution Equipment (Subpart SS). Over time, other industrial processes with required GHGRP reporting may include PFAS emissions data and the list of reportable gases may change over time.
Government Publication Date: Aug 5, 2024

On-Scene Coordinator Response Sites: OSC RESPONSE

This list of On-Scene Coordinator (OSC) Response Sites is provided by the U.S. Environmental Protection Agency (EPA). OSCs are the federal officials responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the federal government. OSCs coordinate all federal efforts with, and provide support and information to local, state, and regional response communities. An OSC is an agent of either EPA or the U.S. Coast Guard (USCG), depending on where the incident occurs. EPA's OSCs have primary responsibility for spills and releases to inland areas and waters. USCG OSCs have responsibility for coastal waters and the Great Lakes. In general, an OSC has the following key responsibilities during and after a response: Assessment, Monitoring, Response Assistance, and Evaluation.
Government Publication Date: Apr 4, 2024

Facility Registry Service/Facility Index: FINDS/FRS

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the U.S. Environmental Protection Agency (EPA).
Government Publication Date: Apr 26, 2024

Toxics Release Inventory (TRI) Program: TRIS

The U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of toxic chemicals from U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. There are currently 770 individually listed chemicals and 33 chemical categories covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual reporting forms for each chemical. Note that the TRI chemical list does not include all toxic chemicals used in the U.S. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment. This database includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.
Government Publication Date: Sep 20, 2023

PFOA/PFOS Contaminated Sites: PFAS NPL

This list of Superfund Sites with Per- and Polyfluoroalkyl Substances (PFAS) detections is made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data, previously the list was obtained by EPA FOIA requests. EPA's Office of Land and Emergency Management and EPA Regional Offices maintain 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. Limitations: Detections of PFAS at National Priorities List (NPL) sites do not mean that people are at risk from PFAS, are exposed to PFAS, or that the site is the source of the PFAS. The information in the Superfund NPL and Superfund Alternative Agreement (SAA) PFAS detection site list is years old and may not be accurate today. Site information such as site name, site ID, and location has been confirmed for accuracy; however, PFAS-related information such as media sampled, drinking water being above the health advisory, or mitigation efforts has not been verified. For Federal Facilities data, the other Federal agencies (OFA) are the lead agency for their data and provided them to EPA.
Government Publication Date: Jun 20, 2024

Federal Agency Locations with Known or Suspected PFAS Detections: PFAS FED SITES

List of Federal agency locations with known or suspected detections of Per- and Polyfluoroalkyl Substances (PFAS), made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data. EPA outlines that these data are gathered from several federal entities, such as the Federal Superfund program, Department of Defense (DOD), National Aeronautics and Space Administration, Department of Transportation, and Department of Energy. The dates this data was extracted for the PFAS Analytic Tools range from 2022 to 2024. Sites on this list do not necessarily reflect the source/s of PFAS contamination and detections do not indicate level of risk or human exposure at the site. Agricultural notifications in this data are limited to DOD sites only. At this time, the EPA is aware that this list is not comprehensive of all Federal agencies.
Government Publication Date: Apr 1, 2024

SSEHRI PFAS Contamination Sites: PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by the PFAS Project Lab, part of the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents. Locations for the Known PFAS Contamination Sites are sourced from the PFAS Sites and Community Resources Map by the PFAS-REACH team, credited to PFAS Project Lab, Silent Spring Institute, and PFAS Exchange. Disclaimer: The source conveys the data undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Access the following source link for the most current information: https://pfasproject.com/pfas-sites-and-community-resources/

Government Publication Date: Jun 27, 2024

National Response Center PFAS Spills: ERNS PFAS

This Per- and Poly-Fluoroalkyl Substances (PFAS) Spills dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The National Response Center (NRC), operated by the U.S. Coast Guard, is the designated federal point of contact for reporting all oil, chemical, and other discharges into the environment, for the United States and its territories. This dataset contains NRC spill information from 1990 to the present that is restricted to records associated with PFAS and PFAS-containing materials. Incidents are filtered to include only records with a "Material Involved" or "Incident Description" related to Aqueous Film Forming Foam (AFFF). The keywords used to filter the data included "AFFF," "Fire Fighting Foam," "Aqueous Film Forming Foam," "Fire Suppressant Foam, "PFAS," "PERFL," "PFOA," "PFOS," and "Genx." Limitations: The data from the NRC website contains initial incident data that has not been validated or investigated by a federal/state response agency. Keyword searches may misidentify some incident reports that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS spills/release incidents.

Government Publication Date: Aug 5, 2024

PFAS NPDES Discharge Monitoring: PFAS NPDES

This list of National Pollutant Discharge Elimination System (NPDES) permitted facilities with required monitoring for Per- and Polyfluoroalkyl (PFAS) Substances is made available via the U.S. Environmental Protection Agency (EPA)'s PFAS Analytic Tools. Any point-source wastewater discharger to waters of the United States must have a NPDES permit, which defines a set of parameters for pollutants and monitoring to ensure that the discharge does not degrade water quality or impair human health. This list includes NPDES permitted facilities associated with permits that monitor for Per- and Polyfluoroalkyl Substances (PFAS), limited to the years 2007 - present. EPA further advises the following regarding these data: currently, fewer 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. For states that may have required monitoring, some reporting and data transfer issues may exist on a state-by-state basis.

Government Publication Date: Jul 29, 2024

Perfluorinated Alkyl Substances (PFAS) from Toxic Release Inventory: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a per- or polyfluoroalkyl (PFAS) substance included in the U.S. Environmental Protection Agency's (EPA) consolidated PFAS Master List of PFAS Substances. Encompasses Toxics Release Inventory records included in the EPA PFAS Analytic Tools. The EPA's TRI database currently tracks information on disposal or releases of 770 individually listed toxic chemicals and 33 chemical categories from thousands of U.S. facilities and details about how facilities manage those chemicals through recycling, energy recovery, and treatment. This listing includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.

Government Publication Date: Sep 20, 2023

PFAS Water Quality Portal Sampling Data: PFAS WATER

This Per- and Poly-Fluoroalkyl Substances (PFAS) Environmental Media Sampling Data is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The Water Quality Portal (WQP), as a cooperative service sponsored by the United States Geological Survey, the EPA, and the National Water Quality Monitoring Council, is 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. Limitations: EPA did not carry out the sampling or testing of a majority of the data in the WQP PFAS dataset. EPA can only speak to the accuracy and completeness of the data from projects like the National Aquatic Resource Surveys for which EPA is the data owner/organization. Data may exist within the file on Quality Assurance Project Plans (QAPPs) and the approving agency of the QAPP, if a QAPP is entered.

Government Publication Date: Jul 22, 2024

PFAS TSCA Manufacture and Import Facilities: PFAS TSCA

The U.S. Environmental Protection Agency (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. This list is specific only to TSCA Manufacture and Import Facilities with reported per- and poly-fluoroalkyl (PFAS) substances. Data file is sourced from EPA's PFAS Analytic Tools TSCA dataset which includes CDR/Inventory Update Reporting data from 1998 up to 2020. Disclaimer: This data file includes production and importation data for chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures in DSSTox. Note that some regulations have specific chemical structure requirements that define PFAS differently than the lists in EPA's CompTox Chemicals Dashboard. Reporting information on manufactured or imported chemical substance amounts should not be compared between facilities, as some companies claim Chemical Data Reporting Rule data fields for PFAS information as Confidential Business Information.

Government Publication Date: Jan 5, 2023

PFAS Waste Transfers from RCRA e-Manifest : PFAS E-MANIFEST

This Per- and Poly-Fluoroalkyl Substances (PFAS) Waste Transfers dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. Every shipment of hazardous waste in the U.S. must be accompanied by a shipment manifest, which is a critical component of the cradle-to-grave tracking of wastes mandated by the Resource Conservation and Recovery Act (RCRA). According to the EPA, currently no Federal Waste Code exists for any PFAS compounds. 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 Vermont state-specific waste codes). Limitations: Amount or concentration of PFAS being transferred cannot be determined from the manifest information. Keyword searches may misidentify some manifest records that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS waste transfers.

Government Publication Date: Jul 23, 2024

PFAS Industry Sectors: PFAS IND

This Per- and Poly-Fluoroalkyl Substances (PFAS) Industry Sectors dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The EPA developed the dataset from various sources that show which industries may be handling PFAS including: EPA's Enforcement and Compliance History Online (ECHO) records restricted to potential PFAS-handling industry sectors; ECHO records for Fire Training Sites identified where fire-fighting foam may have been used in training exercises; and 14 CFR Part 139 Airports compiled from historic and current records from the FAA Airport Data and Information Portal. Since July 2006, all certificated Part 139 Airports are required to have fire-fighting foam onsite that meet certain military specifications, which to date have been fluorinated (Aqueous Film Forming Foam). Limitations: Inclusion in this dataset does not indicate that PFAS are being manufactured, processed, used, or released by the facility. Listed facilities potentially handle PFAS based on their industrial profile, but are unconfirmed by the EPA. Keyword searches in ECHO for Fire Training sites may misidentify some facilities and should not be considered to be an exhaustive list of fire training facilities in the U.S.

Government Publication Date: Jul 1, 2024

Hazardous Materials Information Reporting System: HMIRS

The Hazardous Materials Incident Reporting System (HMIRS) database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Government Publication Date: May 29, 2024

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data 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.

Government Publication Date: Nov 30, 2023

Toxic Substances Control Act: TSCA

The U.S. Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule. The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI). EPA CDR collections occur approximately every four years and reporting requirements change per collection.

Government Publication Date: May 12, 2022

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.
Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.
Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.
Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).
Government Publication Date: Jul 24, 2024

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRD no longer maintains this data, refer to applicable state source data where available.
Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) database contains integrated enforcement and compliance information across most of U.S. Environmental Protection Agency's (EPA) programs. The vision for ICIS is to replace EPA's independent databases that contain enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions and a subset of the Permit Compliance System (PCS), which supports the National Pollutant Discharge Elimination System (NPDES). This information is maintained by the EPA Headquarters and at the Regional offices. A future release of ICIS will completely replace PCS and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities that support compliance and enforcement programs, including incident tracking, compliance assistance, and compliance monitoring.
Government Publication Date: Apr 13, 2024

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. The EPA tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.
Government Publication Date: May 5, 2024

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).
Government Publication Date: May 5, 2024

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset which applies to the Fiscal Year 2021 FUDS Inventory.

Government Publication Date: May 15, 2023

FUDS Munitions Response Sites: FUDS MRS

Boundaries of Munitions Response Sites (MRS), published with the Formerly Used Defense Sites (FUDS) Annual Report to Congress (ARC) by the U.S. Army Corps of Engineers (USACE). An MRS is a discrete location within a Munitions response area (MRA) that is known to require a munitions response. An MRA means any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). This data is compiled from the USACE's Geospatial MRS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) MRS dataset.

Government Publication Date: May 15, 2023

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

This list of flagged pipeline incidents is made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types. Accidents reported on hazardous liquid gravity lines (§195.13) and reporting-regulated-only hazardous liquid gathering lines (§195.15) and incidents reported on Type R gas gathering (§192.8(c)) are not included in the flagged incident file data.

Government Publication Date: May 6, 2024

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) is provided by the United States Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

Government Publication Date: Feb 5, 2024

Surface Mining Control and Reclamation Act Sites: SMCRA

This inventory of land and water impacted by past mining (primarily legacy coal mining operations) is maintained by the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE), as it provides information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This inventory contains information on the type and extent of Abandoned Mine Land (AML) Problems, as well as information on the cost associated with the reclamation of those problems. The data 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. Disclaimer: Per the OSMRE, States and tribes who enter their data into e-AMLIS (AML Inventory System) may truncate their latitude and longitude so the precise location of usually dangerous AMLs is not revealed in an effort to protect the public from searching for these AMLs, most of which are on private property. If more precise location information is needed, please contact the applicable state/tribe of interest.

Government Publication Date: May 20, 2024

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

DOE Legacy Management Sites: LM SITES

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Tile II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: Dec 12, 2023

Alternative Fueling Stations: ALT FUELS

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG), and Renewable Diesel (R20 and above) fuel type locations.

Government Publication Date: Aug 29, 2024

Superfunds Consent Decrees: CONSENT DECREES

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Cases filed since 2010 limited to the following: Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS); and applicable ENRD's Environmental Defense Section (EDS) CERCLA Cases with "Consent" in History Note. CMS may not reflect the latest developments in a case, nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Jun 26, 2024

Air Facility System: AFS

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

Registered Pesticide Establishments: SSTS

This national list of active EPA-registered foreign and domestic pesticide and/or device-producing establishments is based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that each producing establishment must place its EPA establishment number on the label or immediate container of each pesticide, active ingredient or device produced. An EPA establishment number on a pesticide product label identifies the EPA registered location where the product was produced. The list of establishments is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Feb 29, 2024

Polychlorinated Biphenyl (PCB) Transformers: PCBT

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: May 23, 2024

State

PFAS Sampling Locations: PFAS SAMPLING

This data is sourced from the State Water Board's GeoTracker Per- and Polyfluoroalkyl Substances (PFAS) Map tool which contains individual sampling points (i.e., soil boring, groundwater monitoring well, drinking water well for municipal drinking water systems, etc.) or a site location with PFAS analytical data. Includes analytical results that are finalized and submitted electronically by the Responsible Parties via GeoTracker's Electronic Submittal of Information Portal, and after it's accepted by a Regional Water Quality Control Board.

Government Publication Date: Jun 28, 2024

Dry Cleaning Facilities: DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Dec 20, 2021

Delisted Drycleaners: DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Jan 31, 2022

Non-Toxic Dry Cleaning Incentive Program: DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Jan 31, 2022

PFAS GeoTracker Cleanup Sites: PFAS GT CLEANUPS

A list of applicable cleanup sites from the State Water Resources Control Board's (SWRCB) GeoTracker data management system where one or more of the potential contaminants of concern are identified in the PFAS Master List of PFAS Substances made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Jul 4, 2024

PFOA/PFOS Groundwater: PFAS GW

A list of water wells from the Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System with the groundwater chemical perfluorooctanoic acid (PFOA) (NL = 0.014 UG/L) or perfluorooctanoic sulfonate (PFOS) (NL = 0.013 UG/L). The GAMA Groundwater Information System search is made available by California Water Boards.

Government Publication Date: Jun 23, 2024

PFAS Investigations: PFAS INVEST

This list of potential Per- and Polyfluoroalkyl Substance (PFAS) sites is compiled from the California State Water Resources Control Board's (SWRCB) PFAS Investigations Map tool. The SWRCB issued investigative orders, per California Water Code (CWC) Section 13267 and/or 13383, to these sites. Orders were also issued to the public water systems to sample wells in the vicinity of these locations. Military facilities have been identified by the Department of Defense (DOD) as part of their efforts to investigate PFAS per the Defense Environmental Restoration Program (DERP) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The data includes locations for Airports, Chrome Plating Facilities, Landfills, Publicly Owned Treatment Works, Refineries and Bulk Terminals, DOD Facilities, and Monitored Drinking Water Wells being investigated for potential PFAS.

Government Publication Date: Jan 23, 2024

Hazardous Waste and Substances Site List - Site Cleanup: HWSS CLEANUP

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. This list is published by California Department of Toxic Substance Control.

Government Publication Date: Mar 15, 2023

Toxic Pit Cleanup Act Sites: TOXIC PITS

The Toxic Pits Cleanup Act (TPCA) list identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. This list was maintained by the State Water Resources Control Board (SWRCB), is not longer maintained, and updates are not planned.

Government Publication Date: Jul 1, 1995

List of Hazardous Waste Facilities Subject to Corrective Action: DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked by the California Department of Toxic Substance Control's (DTSC) EnviroStor data management system.

Government Publication Date: Nov 23, 2023

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Jun 25, 2024

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Apr 23, 2024

Historical California Hazardous Material Incident Report System (CHMIRS): HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Handlers from Hazardous Waste Manifest Data: HAZNET

A list of handlers not otherwise classified as Treatment, Storage, Disposal facilities (TSDF) or generators from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Oct 24, 2016

Generators from Hazardous Waste Manifest Data: HAZ GEN

List of handlers listed as having generated waste from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Dec 31, 2017

TSDF from Hazardous Waste Manifest Data: HAZ TSD

List of Treatment, Storage, and Disposal Facilities (TSDFs) from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Dec 31, 2017

Historical Hazardous Waste Manifest Data: HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

DTSC Registered Hazardous Waste Transporters: HW TRANSPORT

The California Department of Toxic Substances Control (DTSC) maintains this list of Registered Hazardous Waste Transporters.

Government Publication Date: Jul 15, 2024

Registered Waste Tire Haulers: WASTE TIRE

This list of registered waste tire haulers is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 22, 2024

California Medical Waste Management Program Facility List: MEDICAL WASTE

This list of Medical Waste Management Program Facilities is maintained by the California Department of Public Health. The Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA). The MWMP permits and inspects all medical waste off-site treatment facilities, medical waste transporters, and medical waste transfer stations. This list contains transporters, treatment, and transfer facilities.

Government Publication Date: Apr 15, 2024

Historical Cortese List: HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders: CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Dec 6, 2021

California Environmental Reporting System (CERS) Hazardous Waste Sites: CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Jul 25, 2024

Delisted Environmental Reporting System (CERS) Hazardous Waste Sites: DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Nov 29, 2018

Sites in GeoTracker: GEOTRACKER

GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. This is a list of sites in GeoTracker that aren't otherwise categorized as LUST, Land Disposal Sites (LDS), Cleanup Sites, or sites having Waste Discharge Requirements (WDR). This listing includes program types such as Underground Injection Control (UIC), Confined Animal Facilities (CAF), Irrigated Lands Regulatory Program, plans, and non-case information.

Government Publication Date: Jul 4, 2024

Mines Listing: MINE

This list includes mine site locations extracted from the Mines Online database, maintained by the California Department of Conservation. Mines Online (MOL) is an interactive web map designed with GIS features that provide information such as the mine name, mine status, commodity sold, location, and other mine specific data. Please note: Mine location information is provided to assist experts in determining the location of mine operators in accordance with California Civil Code section 1103.4 and reflects information reported by mine operators in annual reports provided under Public Resources Code section 2207. While the Division of Mine Reclamation (DMR) attempts to populate MOL with accurate location information, the DMR cannot guarantee the accuracy of operator reported location information.

Government Publication Date: Jun 16, 2023

Recorded Environmental Cleanup Liens: LIEN

The California Department of Toxic Substance Control (DTSC) maintains this list of liens placed upon real properties. A lien is utilized by the DTSC to obtain reimbursement from responsible parties for costs associated with the remediation of contaminated properties.

Government Publication Date: Dec 18, 2023

Waste Discharge Requirements: WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Jul 4, 2024

Toxic Pollutant Emissions Facilities: EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program.

Government Publication Date: Dec 31, 2021

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Jan 19, 2021

Tribal

No Tribal additional environmental record sources available for this State.

County

Riverside County - Hazardous Waste Generator Sites List: HWG RIVERSIDE

A list of Hazardous Waste Generator Sites in the County of Riverside. This list is made available by Riverside County Department of Environmental Health which has been designated as the CUPA for the County.

Government Publication Date: Feb 6, 2024

Riverside County - Disclosure Facility List: HZH RIVERSIDE

A list of facilities disclosed to Riverside County Department of Environmental Health (DEH). This list is made available by Riverside County DEH which has been designated as the CUPA for the County. A business is required to establish and submit a Business Plan if the facility handles hazardous material equal to or greater than 55 gallons, 500 pounds or 200 cubic feet at any time during the year.

Government Publication Date: Feb 6, 2024

Riverside County - Medical Waste Facilities: MED WST RIVERSIDE

This list of active and inactive medical waste facilities is maintained by the County of Riverside Department of Environmental Health.

Government Publication Date: Jan 12, 2023

Riverside County - California Accidental Release Prevention Program Sites: RMP RIVERSIDE

This list of Riverside County California Accidental Release Prevention Program sites is maintained by the County of Riverside Department of Environmental Health. AB 3777 was enacted in 1986 to minimize potential emergencies involving acutely hazardous materials by requiring facilities which handle these materials to submit Risk Management Prevention Plans. The Riverside County Department of Environmental Health Hazardous Materials Branch began implementation of this Program County-wide in January 1991. All cities within Riverside County are included in this list.

Government Publication Date: Feb 6, 2024

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Pertinent Regulatory Records

Appendix F

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-F74647
A/N 437958

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

ID 144650

Legal Owner
or Operator: CEMEX CONSTRUCTION MATERIALS, LP
P O BOX 4120 , ATTN: C. JONES
ONTARIO, CA 91761-1067

Equipment Location: 25775 SHERMAN RD, PERRIS, CA 92570

Equipment Description :

STORAGE SILO NO.3, FLY ASH, 3200 CUBIC FEET CAPACITY, WITH AN INTEGRAL FILTER VENT, 25 BAGS, 314 SQ FT TOTAL FILTER AREA, AND PULSE JET CLEANING.

Conditions :

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

3. THE FILTER BAGS IN THE FILTER VENT SHALL BE THOROUGHLY CLEANED IMMEDIATELY AFTER EACH LOAD OF MATERIAL IS RECEIVED.

FILE COPY

THIS PERMIT TO CONSTRUCT/OPERATE R-F74647 SUPERSEDES PERMIT TO CONSTRUCT/OPERATE F74647 ISSUED 4/12/2005

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M.Bailey/RS06
11/3/2005

FILE COPY

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-F74625
A/N 437951

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

ID 144650

Legal Owner
or Operator: CEMEX CONSTRUCTION MATERIALS, LP
P O BOX 4120 , ATTN: C. JONES
ONTARIO, CA 91761-1067

Equipment Location: 25775 SHERMAN RD, PERRIS, CA 92570

Equipment Description :

CONCRETE BATCH PLANT CONSISTING OF:

1. DRIVE OVER HOPPER, AGGREGATE, 30 TON CAPACITY
2. BELT CONVEYOR, AGGREGATE, 3'-0" W. X 25'-0" L., 25 H.P.
3. BELT CONVEYOR, AGGREGATE, 3'-0" W. X 150'-0" L., 40 H.P.
4. SURGE HOPPER, AGGREGATE, SIX COMPARTMENT, 2000 TON CAPACITY.
5. WEIGH HOPPER, AGGREGATE, TWO COMPARTMENT, 12 CUBIC YARD EACH COMPARTMENT.
6. BELT CONVEYOR, AGGREGATE, 4'-0" W. X 98'-0" L., 100 H.P.
7. SCREW CONVEYOR, CEMENT / FLY ASH, 0'-7" DIA., 10 H.P.
8. THREE SCREW CONVEYORS, CEMENT / FLY ASH, EACH 0'-10" DIA., 15 H.P.
9. TWO SCREW CONVEYORS, BAGHOUSE DUST RECYCLE, CEMENT / FLY ASH, EACH 0'-7" DIA., 10 H.P.
10. WEIGH HOPPER, CEMENT / FLY ASH, 12 CUBIC YARD CAPACITY.
11. REVERSING SCREW CONVEYOR, CEMENT / FLY ASH, 0'-10" DIA., 7.5 H.P.
12. TWO HOLDING HOPPERS, READY MIX DISCHARGE, EACH 12 CUBIC YARD CAPACITY.
13. TWO LOADOUT STATIONS WITH UP / DOWN GATHERING HOPPERS, READY MIX, EACH WITH A SHROUD.

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PERMIT TO CONSTRUCT/OPERATE

Conditions :

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

3. THE TOTAL QUANTITY OF READY MIX CONCRETE PRODUCED BY THIS EQUIPMENT SHALL NOT EXCEED 120,000 CUBIC YARDS IN ANY ONE CALENDAR MONTH.

4. AGGREGATE CHARGED, AND AGGREGATE IN PROCESS SHALL BE KEPT SUFFICIENTLY MOIST TO PREVENT EXCESSIVE DUST EMISSIONS.

5. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE CEMENT WEIGH HOPPER, TWO HOLDING HOPPERS, AND TWO UP / DOWN GATHERING HOPPERS ARE VENTED ONLY TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND WHICH HAS BEEN ISSUED AN OPERATING PERMIT BY THE EXECUTIVE OFFICER.

6. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH THE ABOVE PERMIT CONDITIONS. THE RECORDS SHALL BE KEPT FOR A MINIMUM OF THE LAST TWO YEARS AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

THIS PERMIT TO CONSTRUCT/OPERATE R-F74625 SUPERSEDES PERMIT TO CONSTRUCT/OPERATE F74625 ISSUED 4/12/2005

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EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M.Bailey/RS06
11/3/2005

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-F74626
A/N 437953

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

ID 144650

Legal Owner
or Operator: CEMEX CONSTRUCTION MATERIALS, LP
P O BOX 4120 , ATTN: C. JONES
ONTARIO, CA 91761-1067

Equipment Location: 25775 SHERMAN RD, PERRIS, CA 92570

Equipment Description :

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. BAGHOUSE NO.1, VINCE HAGEN, MODEL VH-1094JP, PULSE JET CLEANED, WITH 100 POLYESTER BAGS, 1094 SQ. FT. TOTAL FILTER AREA.

2. EXHAUST SYSTEM WITH A 15 H.P. BLOWER, VENTING A CEMENT WEIGH HOPPER, A HOLDING HOPPER, AND AN UP / DOWN GATHERING HOPPER.

Conditions :

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3. A MECHANICAL GAUGE SHALL BE INSTALLED AND MAINTAINED TO INDICATE, IN INCHES OF WATER COLUMN, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE BAGS.

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EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M.Bailey/RS06
11/3/2005

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-F74629
A/N 437957

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ID 144650

Legal Owner
or Operator: CEMEX CONSTRUCTION MATERIALS, LP
P O BOX 4120 , ATTN: C. JONES
ONTARIO, CA 91761-1067

Equipment Location: 25775 SHERMAN RD, PERRIS, CA 92570

Equipment Description :

STORAGE SILO NO.2, CEMENT, 3200 CUBIC FEET CAPACITY, WITH AN INTEGRAL FILTER VENT, 25 BAGS, 314 SQ FT TOTAL FILTER AREA, AND PULSE JET CLEANING.

Conditions :

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

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3. THE FILTER BAGS IN THE FILTER VENT SHALL BE THOROUGHLY CLEANED IMMEDIATELY AFTER EACH LOAD OF MATERIAL IS RECEIVED.

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By Dorris M.Bailey/RS06
11/3/2005

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-F74628
A/N 437956

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

ID 144650

Legal Owner
or Operator: CEMEX CONSTRUCTION MATERIALS, LP
P O BOX 4120 , ATTN: C. JONES
ONTARIO, CA 91761-1067

Equipment Location: 25775 SHERMAN RD, PERRIS, CA 92570

Equipment Description :

STORAGE SILO NO.1, CEMENT, 3200 CUBIC FEET CAPACITY, WITH AN INTEGRAL FILTER VENT, 25 BAGS, 314 SQ FT TOTAL FILTER AREA, AND PULSE JET CLEANING.

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EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M.Bailey/RS06
11/3/2005

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SCAQMD Facility Equipment List Report

Facility: 144650 CEMEX CONSTRUCTION MATERIALS, LP
Status: Out of Business
MR:
SIC:
Team: I
Last Inspection: 09/02/2011
On Hold: N
Suspended: N
TS: TS-12 Industrial Sources - Out of Business and Cha
Quarter: 0010 - inspect in 3rd quarter, every year
Contact: GEORGE KOCH (909) 8231809
RECLAIM: N
TITLE V: N
AIRS ID:
Assignment: 1259004
Location Address: 25775 SHERMAN RD, PERRIS 92570 Sector:EO
Inspector: TA01 TERRY ALLEN
Mailing Address: 3990 E CONCOURS, ONTARIO 91764 Sector:EG
Inspection Date: 09/02/2011
Instruction:
Disposition: Out of Business

Application No.	Permit No.	Permit Issue Date	Permit Status	Equipment Category		BCAT/CCAT Description	Application Date	Application Status
437951	F74625	04/12/2005	INACTIVE	000292	BCAT	CONCRETE BATCH EQUIPMENT	12/16/2004	PERMIT TO OPERATE GRANTED
437953	F74626	04/12/2005	INACTIVE	22	CCAT	BAGHOUSE, AMBIENT TEMP (>500 SQ FT)	12/16/2004	PERMIT TO OPERATE GRANTED
437955	F74627	04/12/2005	INACTIVE	22	CCAT	BAGHOUSE, AMBIENT TEMP (>500 SQ FT)	12/16/2004	PERMIT TO OPERATE GRANTED
437956	F74628	04/12/2005	INACTIVE	101920	BCAT	STORAGE SILO CEMENT	12/16/2004	PERMIT TO OPERATE GRANTED
437957	F74629	04/12/2005	INACTIVE	101920	BCAT	STORAGE SILO CEMENT	12/16/2004	PERMIT TO OPERATE GRANTED
437958	F74647	04/12/2005	INACTIVE	112920	BCAT	STORAGE SILO FLY ASH	12/16/2004	PERMIT TO OPERATE GRANTED

Inspector: _____ Date: _____ Reviewed By: _____ Date: _____

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

Permit No.
R-F74627
A/N 437955

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

ID 144650

Legal Owner
or Operator: CEMEX CONSTRUCTION MATERIALS, LP
P O BOX 4120 , ATTN: C. JONES
ONTARIO, CA 91761-1067

Equipment Location: 25775 SHERMAN RD, PERRIS, CA 92570

Equipment Description :

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. BAGHOUSE NO.2, VINCE HAGEN, MODEL VH-1094JP, PULSE JET CLEANED, WITH 100 POLYESTER BAGS, 1094 SQ. FT. TOTAL FILTER AREA.

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EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M.Bailey/RS06
11/3/2005

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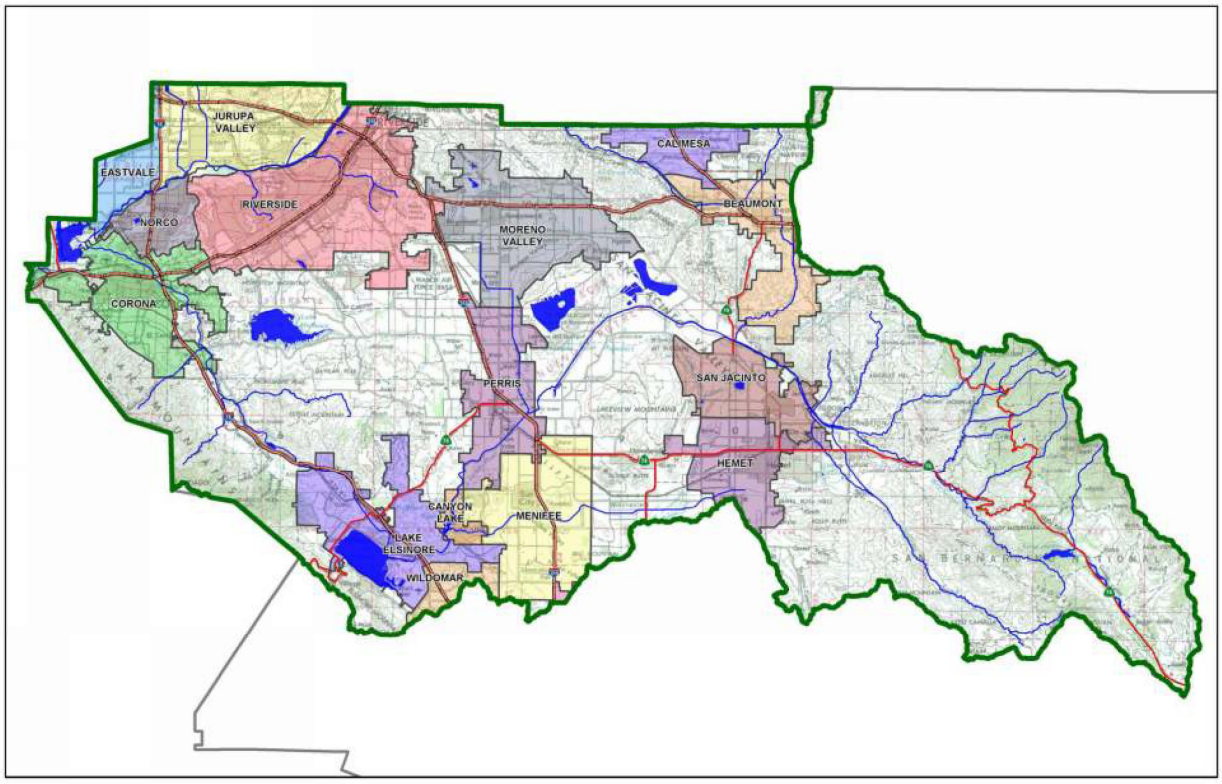
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Green Bee Concrete

Development No: JM-GBC24001

Design Review/Case No: PLN24-05118



☒ **Preliminary**
☐ **Final**

Original Date Prepared: 7 October 2024

Revision Date(s):

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**
Template revised June 30, 2016

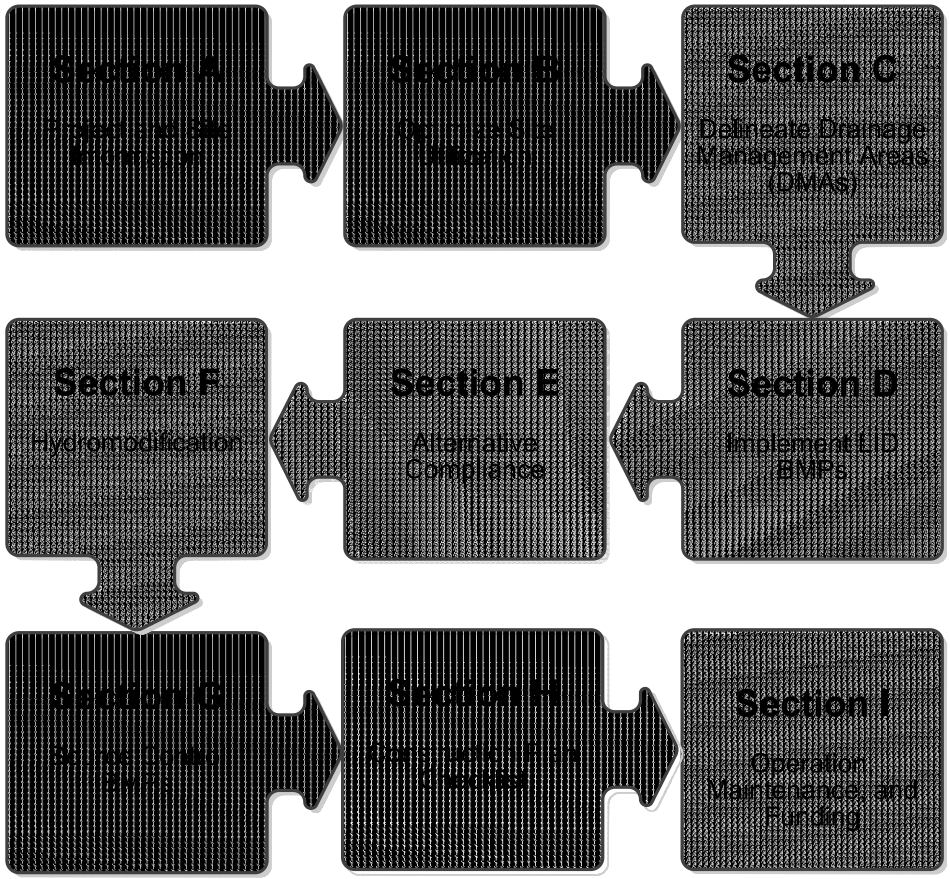
Contact Information:

Prepared for: Green Bee Concrete
18890 Seaton Avenue
Perris, CA 92570
Tel. 953-795-4260

Prepared by: Michelle Maynard
Civil Engineer CA#88357
JM Civil Engineering
38 Executive Park, Suite 310
Tel. 360-261-1461

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Green Bee Concrete by JM Civil Engineering for the Green Bee Concrete project.

This WQMP is intended to comply with the requirements of City of Perris for Water Quality Ordinance 1194 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Perris Water Quality Ordinance 1194 (Municipal Code Section 14.22).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature	Date
Michelle Maynard Preparer's Printed Name	Civil Engineer CA#88357 Preparer's Title/Position

Preparer's Licensure:

Table of Contents

Section A: Project and Site Information 6

A.1 Maps and Site Plans 6
A.2 Identify Receiving Waters 7
A.3 Additional Permits/Approvals required for the Project: 7

Section B: Optimize Site Utilization (LID Principles) 8

Section C: Delineate Drainage Management Areas (DMAs) 10

Section D: Implement LID BMPs 12

D.1 Infiltration Applicability 12
D.2 Harvest and Use Assessment 13
D.3 Bioretention and Biotreatment Assessment 15
D.4 Feasibility Assessment Summaries 15
D.5 LID BMP Sizing 16

Section E: Alternative Compliance (LID Waiver Program) 17

E.1 Identify Pollutants of Concern 18
E.2 Stormwater Credits 19
E.3 Sizing Criteria 19
E.4 Treatment Control BMP Selection 20

Section F: Hydromodification 21

F.1 Hydrologic Conditions of Concern (HCOC) Analysis 21
F.2 HCOC Mitigation 22

Section G: Source Control BMPs 23

Section H: Construction Plan Checklist 25

Section I: Operation, Maintenance and Funding 26

List of Tables

Table A.1 Identification of Receiving Waters 7
Table A.2 Other Applicable Permits 7
Table C.1 DMA Classifications 10
Table C.2 Type 'A', Self-Treating Areas 10
Table C.3 Type 'B', Self-Retaining Areas 10
Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas 11
Table C.5 Type 'D', Areas Draining to BMPs 11
Table D.1 Infiltration Feasibility 12
Table D.2 LID Prioritization Summary Matrix 15
Table D.3 DCV Calculations for LID BMPs 16
Table E.1 Potential Pollutants by Land Use Type 18
Table E.2 Treatment Control BMP Sizing 19
Table E.3 Treatment Control BMP Selection 20
Table F.1 Hydrologic Conditions of Concern Summary 21
Table G.1 Permanent and Operational Source Control Measures 23
Table H.1 Construction Plan Cross-reference 25

List of Appendices

Appendix 1: Maps and Site Plans 27
Appendix 2: Construction Plans 28
Appendix 3: Soils Information 29
Appendix 4: Historical Site Conditions 30
Appendix 5: LID Infeasibility 31
Appendix 6: BMP Design Details 32
Appendix 7: Hydromodification 33
Appendix 8: Source Control 34
Appendix 9: O&M 35
Appendix 10: Educational Materials ..... - 6 -

Section A: Project and Site Information

PROJECT INFORMATION		
Type of Project:	Concrete Trucking Warehouse	
Planning Area:	9 – Southeast Commercial	
Community Name:	N/A	
Development Name:	Community Facilities District No. 2018-02	
PROJECT LOCATION		
Latitude & Longitude (DMS): 33^{O} 44'45.96"N, 117^{O}10'53.76"W		
Project Watershed and Sub-Watershed: Santa Ana River Watershed, Homeland/Romoland		
Gross Acres: 5.39 APN(s): 329-240-031, 329-240-028 Map Book and Page No.: Book 14, Pages 63-65		
PROJECT CHARACTERISTICS		
Proposed or Potential Land Use(s)	Commercial	
Proposed or Potential SIC Code(s)	1541	
Area of Impervious Project Footprint (SF)	201,027	
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement	201,027	
Does the project consist of offsite road improvements?	☒ Y	☐ N
Does the project propose to construct unpaved roads?	☐ Y	☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y	☒ N
EXISTING SITE CHARACTERISTICS		
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)	0	
Is the project located within any MSHCP Criteria Cell?	☐ Y	☒ N
If so, identify the Cell number:	N/A	
Are there any natural hydrologic features on the project site?	☐ Y	☒ N
Is a Geotechnical Report attached?	☐ Y	☒ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	D	
What is the Water Quality Design Storm Depth for the project?	0.61 in	

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Line A-1	None	None	N/A
Line A	None	None	N/A
San Jacinto River Reach 3 (HU 802.11)	None	AGR, GWR, WILD, MUN, REC1, REC2, WARM	N/A
San Jacinto River Reach 2 (HU 802.11)	None	AGR, GWR, WILD, MUN, REC1, REC2, WARM	N/A
Canyon Lake – Railroad Canyon Reservoir (HU 802.11)	Nutrients	WILD, REC2, WARM, GWR, MUN, REC1, AGR	N/A
San Jacinto River Reach 1 (HU 802.32)	None	AGR, GWR, MUN, REC1, REC2, WARM, WILD	N/A
Lake Elsinore (HU 802.31)	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, DDT, Toxicity	MUN, REC1, REC2, WARM, WILD	N/A

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* City of Perris Grading Permit	☒ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The existing drainage pattern is from the northeast corner to the southwest corner and then offsite. As the proposed buildings will be located in the southwestern corner the existing drainage pattern could not be continued.

Did you identify and protect existing vegetation? If so, how? If not, why?

There is one existing tree onsite; otherwise, the site has very little grass. The existing tree will be protected.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

The site does not have any natural infiltration capacity.

Did you identify and minimize impervious area? If so, how? If not, why?

As the site was previously empty, impervious area was planned as needed for the development and required circulation with minimization in mind.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Some runoff will be dispersed to pervious area for treatment. Most runoff will flow to underground storage pipes to be detained prior to treatment through a Contech modular wetlands linear and eventually pumped out to the street.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
DMA 1	Concrete/Asphalt	201,027	D
DMA 2	Ornamental Landscaping	35,628	A

[1]*Reference Table 2-1 in the WQMP Guidance Document to populate this column*
[2]*If multi-surface provide back-up*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
DMA 2	35,628	Tree, Shrubs, Groundcover	Drip

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Impervious fraction	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
DMA 1	BMP 1 – MWS Linear

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs: 1, 2		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 0.817

Type of Landscaping (Conservation Design or Active Turf): Conservation Design

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 4.62

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 0.842

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 3.89

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
3.89	0.817

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: 35

Project Type: Commercial

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 4.62

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 134

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 619

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
619	35

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

N/A

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: Enter Value

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA 1	☐	☐	☐	☒	☐
DMA 2	☒	☐	☐	☐	☐

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*MWS-L-8-20-V-UG*		
	[A]		[B]	[C]	[A] x [C]			
DMA 1	*201,027*	*Roof, Pavement*	*1*	*0.892*	*179,316*	*Design Storm Depth (in)*	*Design Capture Volume,* $\mathbf{V_{BMP}}$ *(cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	A_T 201,063				Σ= 179,316	0.61	[F] = 9,115	[G]=10,372

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☒ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☒ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☐	☐	☒	☐	☒	☐	☒	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

N/A

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.2 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor		*MWS-L-8-20-V-UG*		
	[A]		[B]	[C]	[A] x [C]				
DMA 1	*201,027*	*Roof, Pavement*	*1*	*0.892*	179,316	*Design Storm Depth (in)*	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = 201,027				Σ= 179,316	[E]= 0.2	[F] = 0.82	0	[I]=10,372

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document

[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document

[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12

[H] is from the Total Credit Percentage as Calculated from Table E.2 above

[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.3 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
Modular Wetlands System – Linear	Trash and Debris	On Water Board Certified Full Capture System List of Trash Treatment Control Devices updated November 2020

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

[2] Cross Reference Table E.1 above to populate this column.

[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	INSERT VALUE	INSERT VALUE	INSERT VALUE
Volume (Cubic Feet)	INSERT VALUE	INSERT VALUE	INSERT VALUE

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
On-site storm drain grated inlets	Mark all inlets with the words "ONLY RAIN DOWN THE DRAIN"	Maintain and periodically repaint or replace inlet markings. Provide stormwater pollution prevention information to new site owners, lessees, or operators.
Landscape/Outdoor Pesticide Use	Final landscape plans will accomplish all of the following: Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.	Maintain landscaping using minimum or no pesticides. Any fertilizer and/or pesticide usage to be consistent with

Landscape/Outdoor Pesticide Use (cont'd)	Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	Management Guidelines for Use of Fertilizers DAMP Section 5.5. Follow County Water Conservation Resolution Provide IPM Information to new owners, lessees and operators.
Fire Sprinkler Test Water	Fire Sprinkler test valves will be equipped with a means to divert test water to the sanitary sewer.	
Refuse areas	Refuse enclosure will covered with a roof. Surface water will be directed away from the enclosure. Receptacles will have covers.	Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on- site.
Sidewalks, parking lots and drive isles	New hardscape areas drain to MWS Linear	Sidewalks, parking lots, and drive isles shall be swept regularly to prevent accumulation of litter and debris. Debris from pressure washing shall be collected and not allowed to enter the storm drain system. Wash water containing any cleaning agent or degreaser shall be collected and not discharged to a storm drain.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)
BMP 1	MWS Linear	Storm Drain Plan C 530	
	On-site storm drain grated inlets	Storm Drain Plan C 530	
	Landscape/Outdoor Pesticide use	Landscaping Plans	
	Refuse Areas	Architectural Plan Sheets	
	Sidewalks, Parking Lots, and Drive Isles	Grading Plan C 300	

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Maintenance Costs will be funded by the Owner.

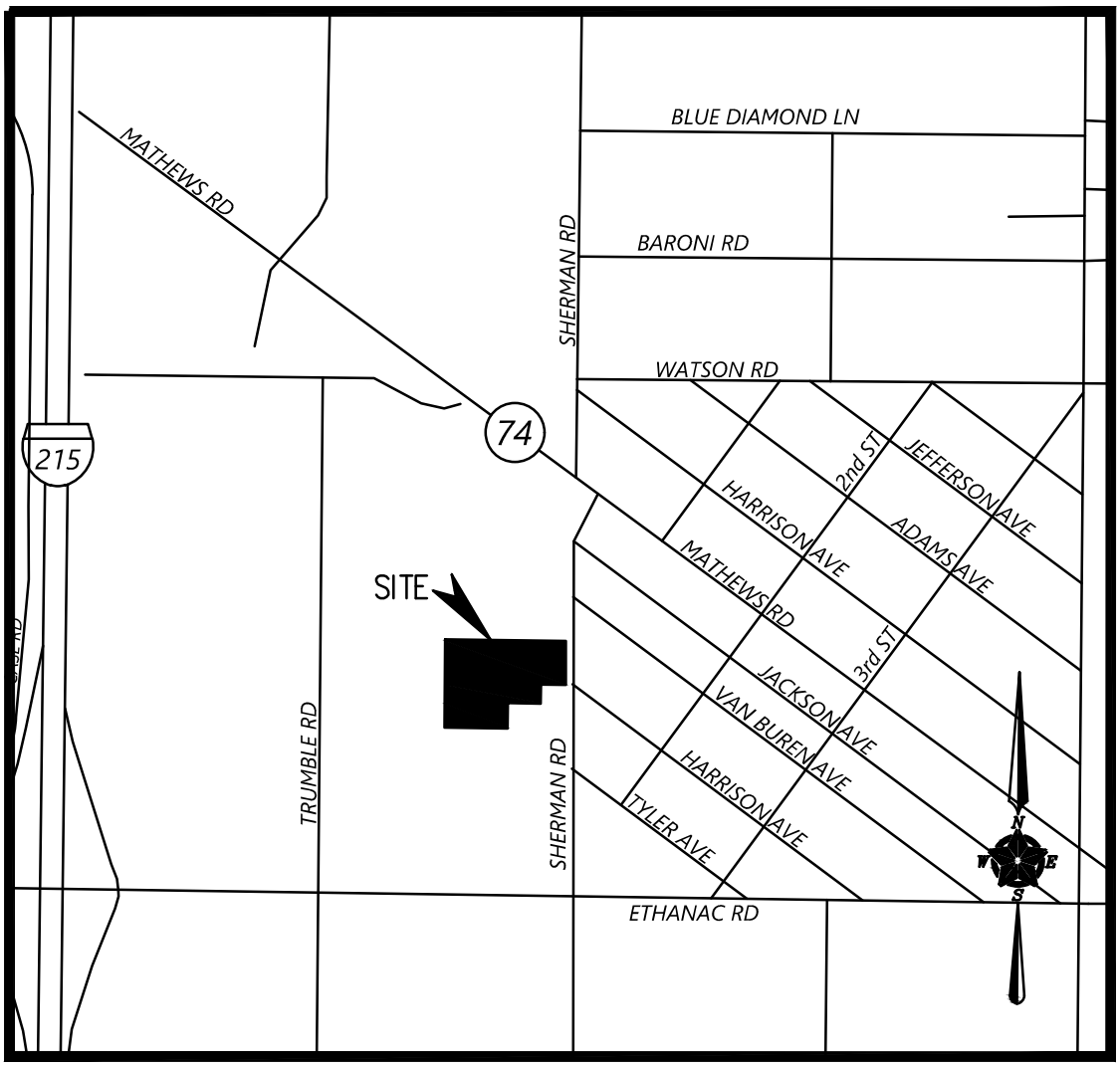
Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map



LOCATION MAP

NOT TO SCALE

CAUTION NOTICE TO CONTRACTOR

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BENCHMARKS

1/2" IROD ROD WITH CAP "LCA CONTROL" ON EAST SIDE OF SH 349 (RANKIN HIGHWAY) RIGHT OF WAY.
N=6,278,029.37 E= 2,216,267.07
ELEVATION=1432.82'

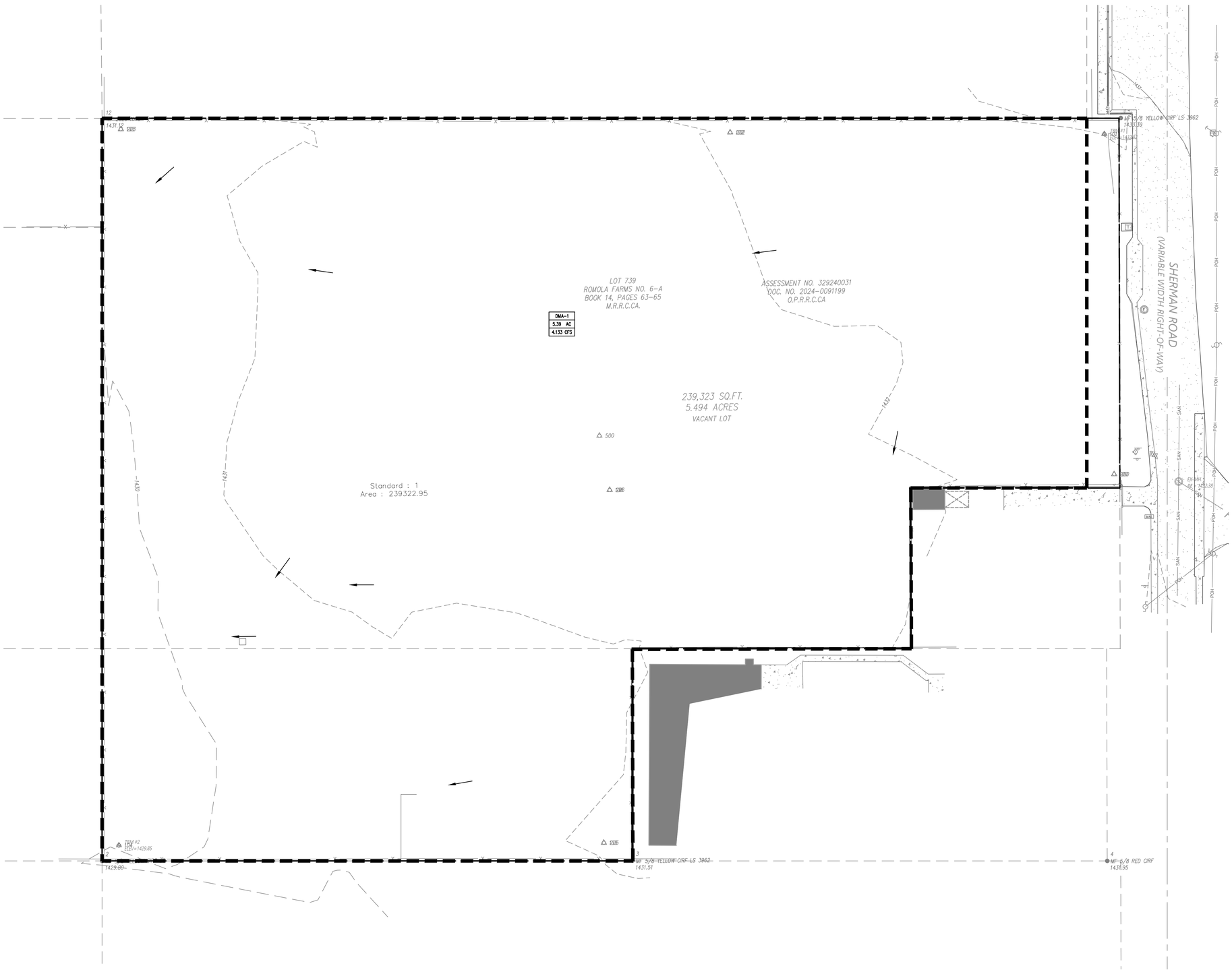
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ELEVATION=1429.85'

FLOODNOTE

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PRE DEV. DRAINAGE AREA MAP LEGEND:

XXX EXISTING CONTOUR



GRAPHIC SCALE
30 0 15 30
(IN FEET)
1 inch = 30 ft.

PRE DEVELOPMENT DRAINAGE AREA KEY:

DRAINAGE DIVIDE

X — Area
X.XX AC — Acreage
X.XX CFS — Q_{100}

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Suite 310
Irvine, CA 92614

Ph. 760-538-3388

Kyle Flaming, PE
CIVIL ENGINEER

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PRE DEV. DRAINAGE AREA MAP

GREEN BEE CONCRETE
25775 SHERMAN RD.
PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	10/16/24	INITIAL SUBMITTAL	MM

PROJECT NO: JM-GBC24001.0
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CHECKED BY: MM
ISSUE DATE: 10/16/2024

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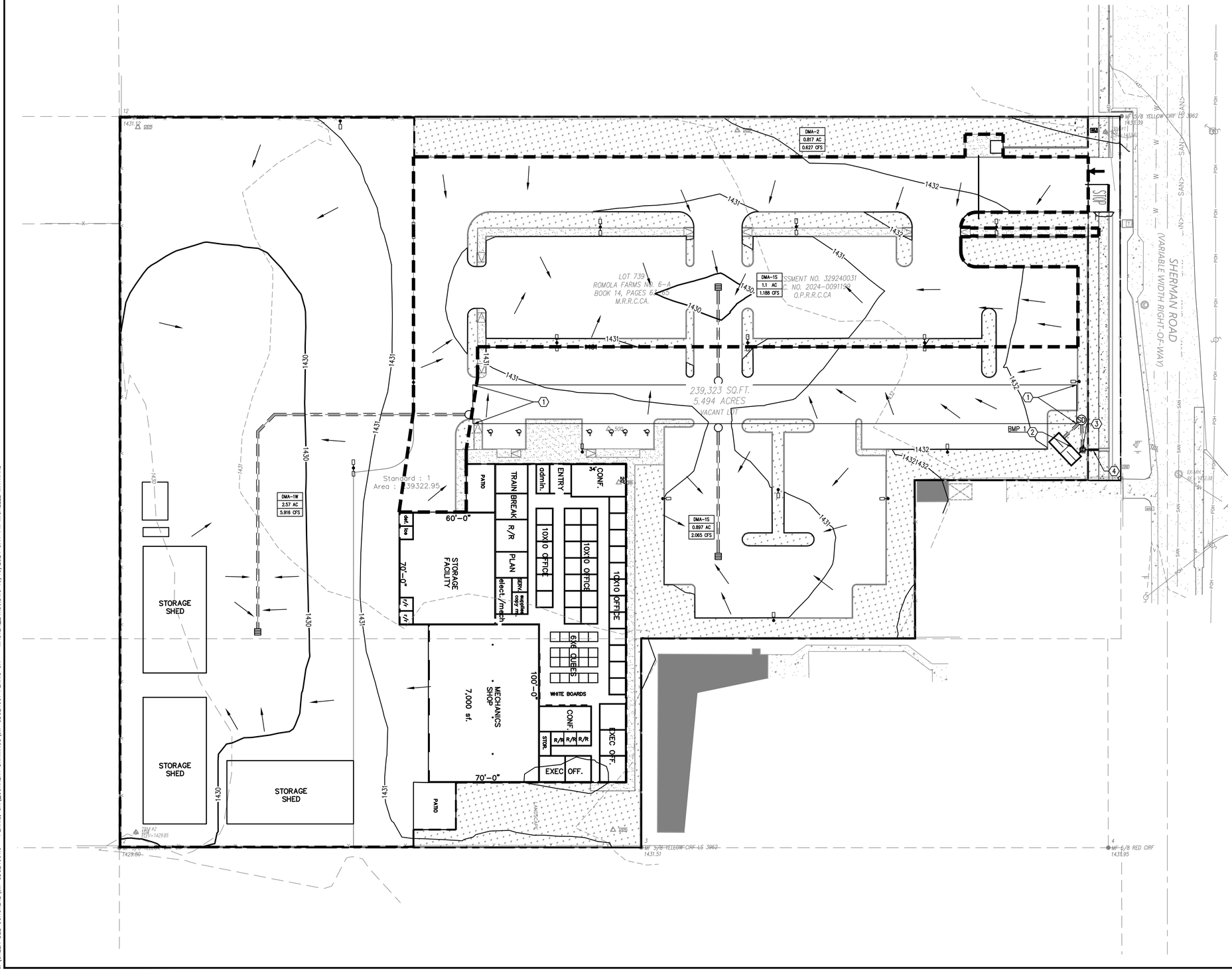
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POST DEV. DRAINAGE AREA MAP LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- EXISTING CONTOUR
- DRAINAGE DIVIDE
- ADA RAMP
- LIGHT POLE
- BOLLARD
- AREA DRAIN
- TRAFFIC SIGN
- BOLLARD MOUNTED ACCESSIBLE SIGN
- SELF-TREATING AREA
- CATCH BASIN
- DRAINAGE SLOPE AND DIRECTION

GRAPHIC SCALE
30 0 15 30
(IN FEET)
1 inch = 30 ft.

POST DEVELOPMENT DRAINAGE AREA KEY:

- DRAINAGE DIVIDE

X	Area
X.XX AC	Acreage
X.XX CFS	Q_{100}

POST DEV. DRAINAGE AREA KEY NOTES:

1. CONTECH ALUMINIZED CMP DETENTION FIELD.
2. CONTECH MWS-L-8-20-V.
3. SANTA FE WATER SYSTEMS STORMWATER DISCHARGE PUMP STATION.
4. 14" WIDE RECTANGULAR CHANNEL FILLED WITH COBBLE.

POST DEV. DRAINAGE AREA NOTES:

OFFSITE RUN-ON IS NOT EXPECTED BASED ON EXISTING GRADES AND PROPOSED WALLS. STORMWATER RUNOFF THAT FALLS ON THE SITE WILL BE DIRECTED TO PROPOSED DRAIN INLETS, WHICH ARE PIPED TO THE UNDERGROUND DETENTION AND THEN TO THE MWS-L-LINEAR FOR TREATMENT. TREATED STORMWATER RUNOFF THEN FLOWS TO THE PUMP STATION FOR DISCHARGE UNDER THE SIDEWALK ON SHERMAN ROAD.

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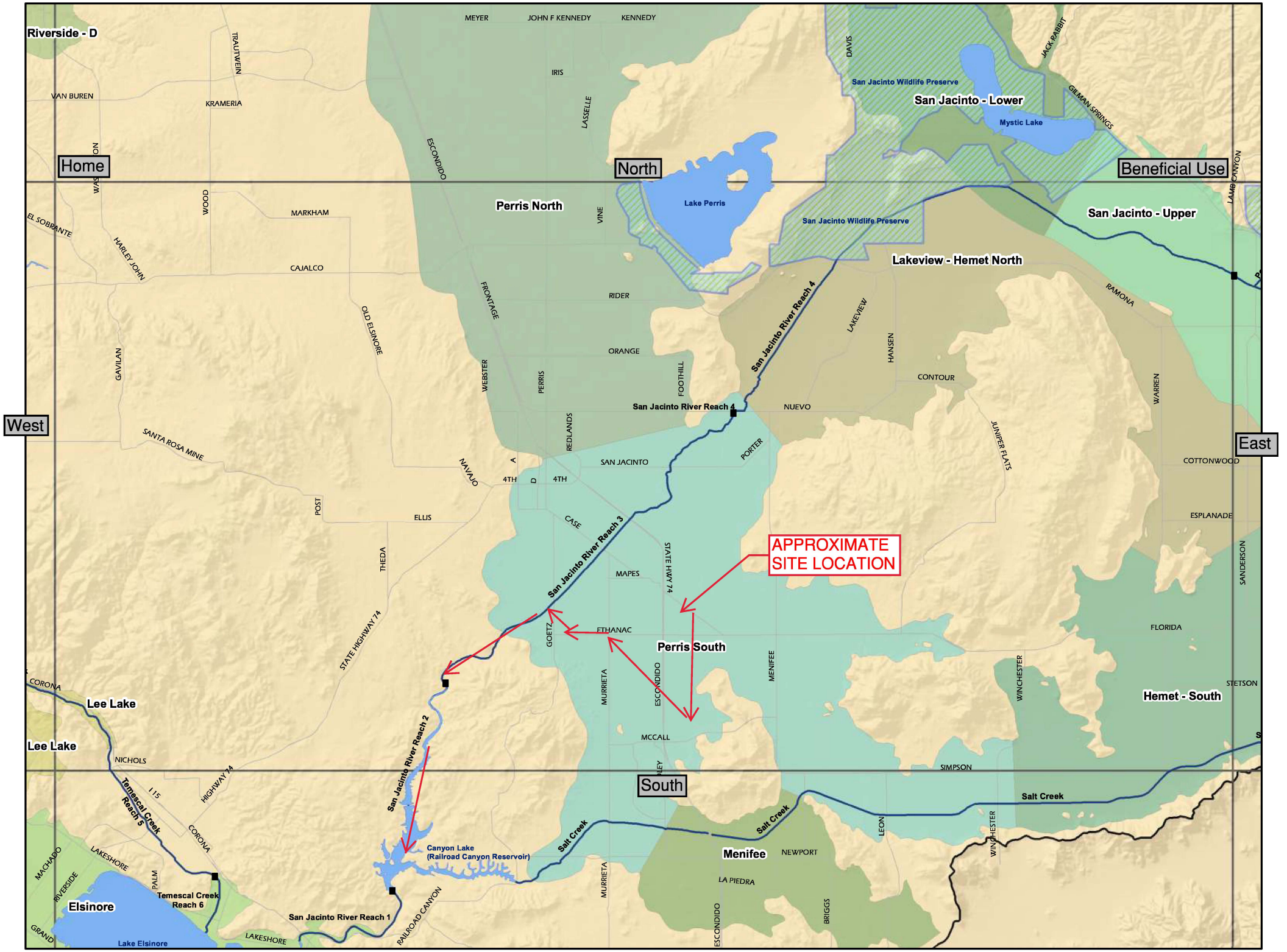
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25775 SHERMAN RD.
PERRIS, CA 92570

NAME	DESCRIPTION	REV	DATE
MM	INITIAL SUBMITTAL		10/16/24

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DRAWN BY: AB, ML, MM
CHECKED BY: MM
ISSUE DATE: 10/16/2024

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Riverside - D
Home
North
Beneficial Use
West
East
South
APPROXIMATE SITE LOCATION
San Jacinto - Lower
San Jacinto - Upper
Lakeview - Hemet North
Perris North
Perris South
Hemet - South
Menifee
Elsinore
Lee Lake
Lake Perris
Mystic Lake
Canyon Lake (Railroad Canyon Reservoir)
Lake Elsinore
San Jacinto Wildlife Preserve
San Jacinto River Reach 1
San Jacinto River Reach 2
San Jacinto River Reach 3
San Jacinto River Reach 4
Temescal Creek Reach 5
Temescal Creek Reach 6
Salt Creek
MEYER
JOHN F KENNEDY
KENNEDY
IRIS
VAN BUREN
KRAMERIA
TRAUTWEIN
LASSELLE
ESCONDIDO
DAVIS
JACK RABBIT
GILMAN SPRINGS
LAMB CANYON
WASHINGTON
WOOD
MARKHAM
VINE
EL SOBRANTE
HARLEY JOHN
CAJALCO
FRONTAGE
RIDER
ORANGE
OLD ELSINORE
GAVILAN
WEBSTER
PERRIS
FOOTHILL
LAKEVIEW
HANSEN
CONTOUR
RAMONA
WARREN
NUEVO
REDLANDS
PORTER
JUNIPER FLATS
COTTONWOOD
SANTA ROSA MINE
SAN JACINTO
NAVAJO
4TH
ELLIS
POST
CASE
THEDA
STATE HIGHWAY 74
MAPES
GOETZ
ETHANAC
MURRIETA
MENIFEE
WINCHESTER
FLORIDA
ESPLANADE
SANDERSON
STETSON
MCCALL
SIMPSON
NICHOLS
HIGHWAY 74
115
CORONA
LAKESHORE
MACHADO
RIVERSIDE
PALM
GRAND
RAILROAD CANYON
LEON
NEWPORT
LA PIEDRA
BRIGGS

Appendix 2: Construction Plans

Grading and Drainage Plans

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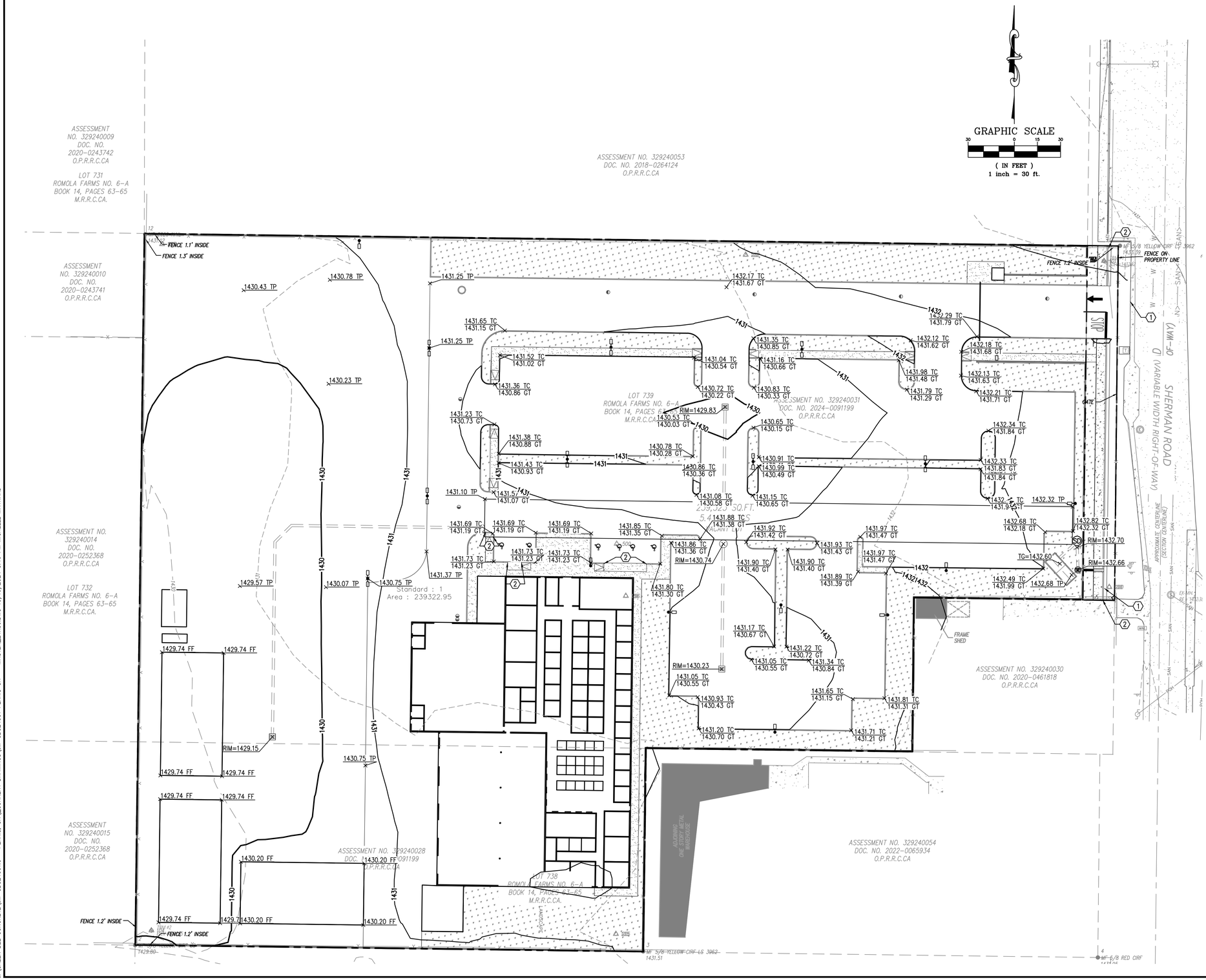
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GRADING LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- XXX EXISTING CONTOUR
- XXX PROPOSED CONTOUR
- LIGHT POLE
- AREA DRAIN
- ACCESSIBLE SPACES
- ADA RAMP
- BOLLARD
- TRAFFIC SIGN
- BOLLARD MOUNTED ACCESSIBLE SIGN
- GREASE TRAP
- CLEAN-OUT
- DOUBLE CLEAN-OUT
- GM GAS METER
- WM WATER METER
- IM IRRIGATION METER
- SS MANHOLE
- CURB INLET

- × XXXX EX EXISTING SPOT ELEVATION
- × XXXX TP TOP OF PAVEMENT ELEVATION
- × XXXX TC TOP OF CURB / XXXX GT GUTTER
- × XXXX GR GROUND
- × XXXX FF FINISH FLOOR
- × XXXX SW SIDEWALK
- × XXXX TG TOP OF GRATE

GRADING KEY NOTES:

(1) MATCH EXISTING ELEVATION.
(2) TAPER CURB FROM 6" TO 0".

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GRADING PLAN

GREEN BEE CONCRETE
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REV	DATE	DESCRIPTION	NAME
	10/16/24	INITIAL SUBMITTAL	MM

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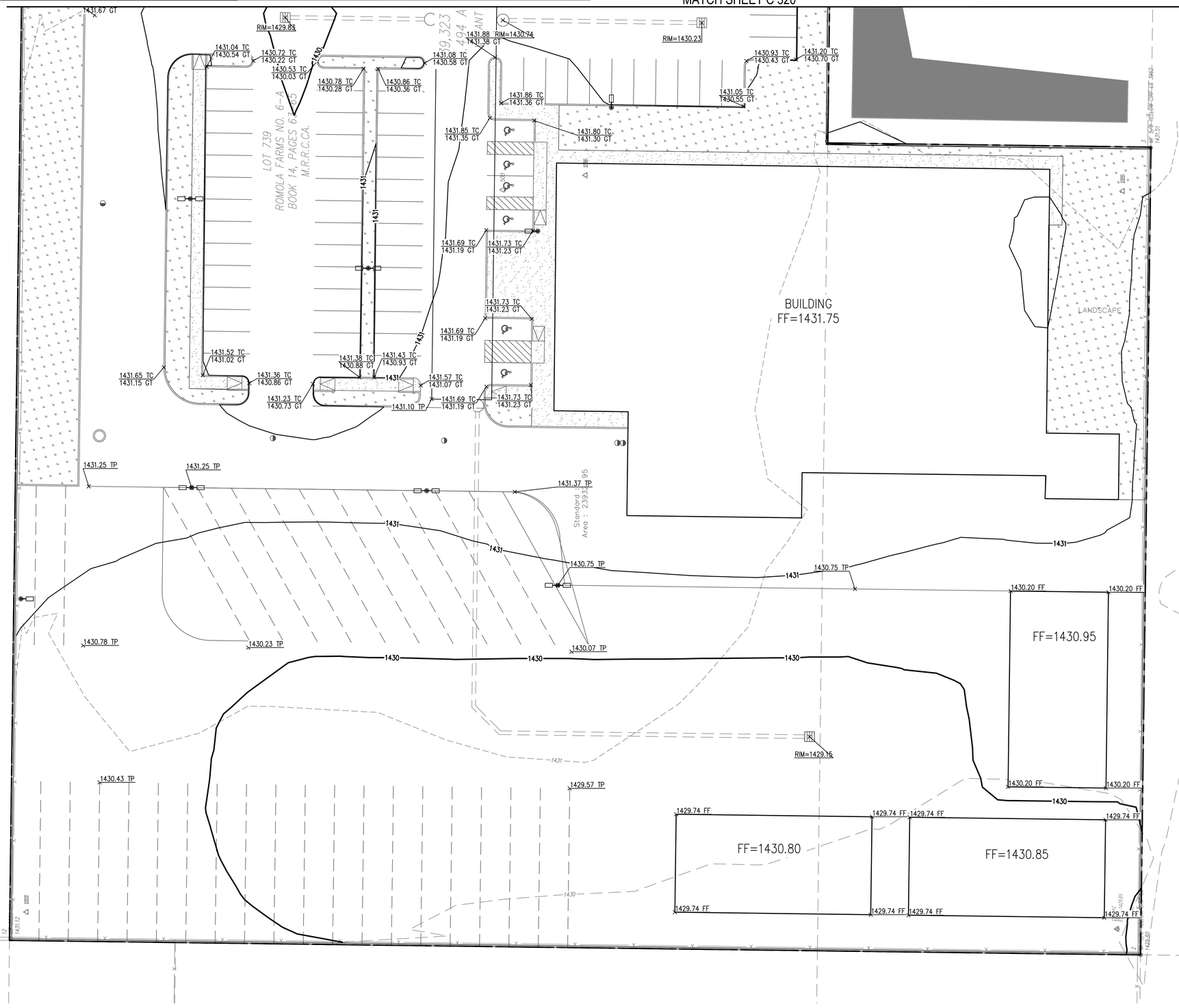
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MATCH SHEET C 320



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- LIMITS OF FULL DEPTH SAWCUT
- XXX — EXISTING CONTOUR
- XXX — PROPOSED CONTOUR
- LIGHT POLE
- AREA DRAIN
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- × XXXX GR GROUND
- × XXXX FF FINISH FLOOR
- × XXXX SW SIDEWALK
- × XXXX TG TOP OF GRATE

GRAPHIC SCALE
10 0 5 10
(IN FEET)
1 inch = 10 ft.

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GRADING PLAN 1/2 ENLARGEMENT

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PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	10/16/24	INITIAL SUBMITTAL	MM

PROJECT NO: JM-GBC24001.0
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CHECKED BY: MM
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- CLEAN-OUT
- DOUBLE CLEAN-OUT
- GAS METER
- WATER METER
- IRRIGATION METER
- MANHOLE
- CURB INLET
- XXXX EX EXISTING SPOT ELEVATION
- XXXX TP TOP OF PAVEMENT ELEVATION
- XXXX TC TOP OF CURB
  XXXX GT GUTTER
- XXXX GR GROUND
- XXXX FF FINISH FLOOR
- XXXX SW SIDEWALK
- XXXX TG TOP OF GRATE

GRAPHIC SCALE
20 0 10 20
(IN FEET)
1 inch = 20 ft.

MATCH SHEET C 310

LOT 739
ROMOLA FARMS NO. 6-A
BOOK 14, PAGES 63-65
M.R.R.C.CA.

ASSESSMENT NO. 329240031
DOC. NO. 2024-0091199
O.P.R.R.C.CA

239,323 SQ.FT.
5.494 ACRES
VACANT LOT

BUILDING
FF=1431.75

SHERMAN ROAD
(VARIABLE WIDTH RIGHT-OF-WAY)

HARRISON AV.

MF 5/8 YELLOW CAP LS 7962
1433.19'

RIM=1429.83
RIM=1430.74
RIM=1430.23
RIM=1432.70
RIM=1432.66
TC=1432.60

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ENLARGEMENT

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PERRIS, CA 92570

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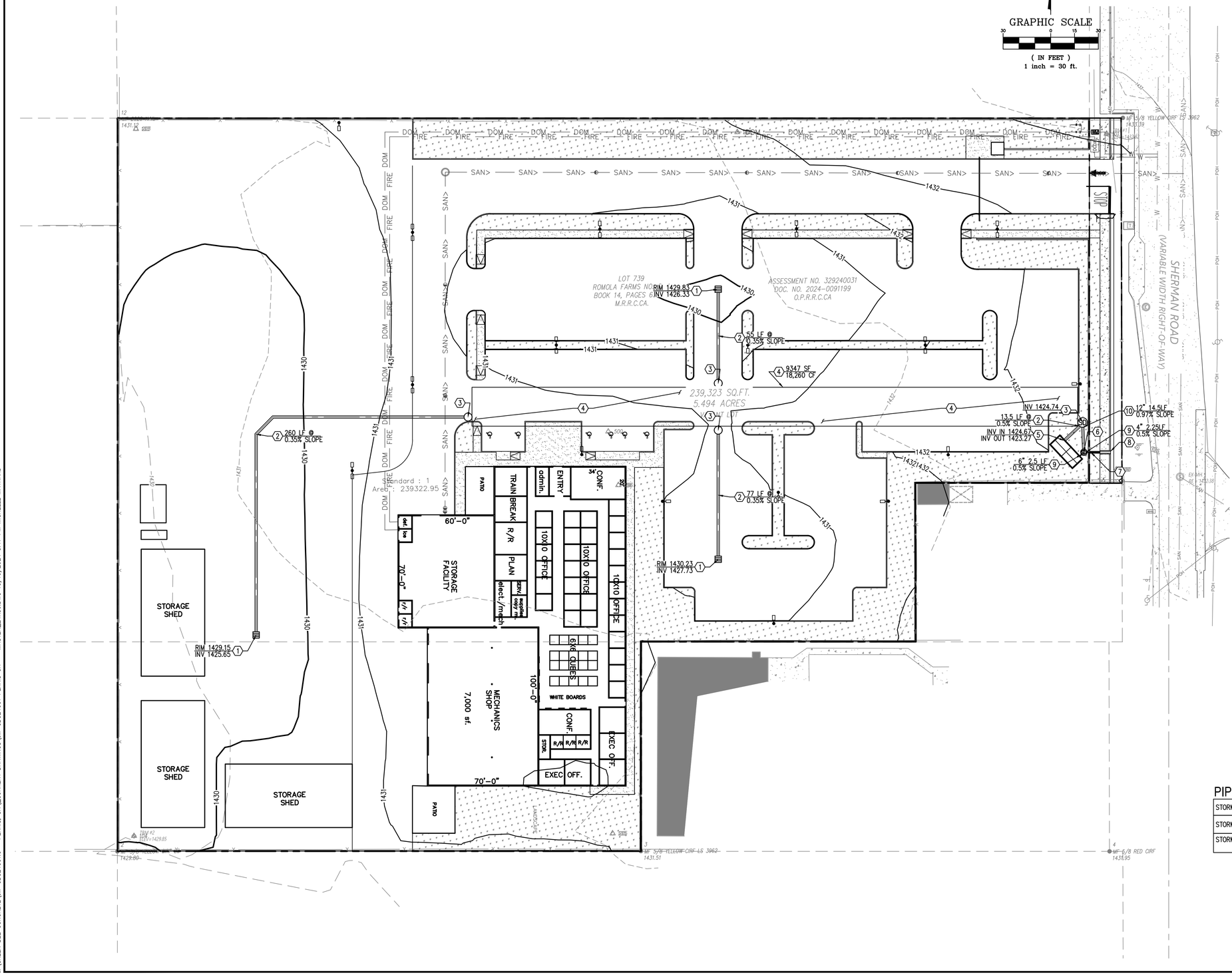
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(IN FEET)
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STORM DRAIN LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- XXX — EXISTING CONTOUR
- STORM DRAIN PIPE
- SAN> SANITARY SEWER LINE
- W W WATER LINE
- GAS GAS LINE
- E ELECTRIC SERVICE LINE
- T TELEPHONE SERVICE LINE
- ADA RAMP
- BOLLARD
- TRAFFIC SIGN
- BOLLARD MOUNTED ACCESSIBLE SIGN
- IRRIGATION METER
- MANHOLE
- CURB INLET
- LIGHT POLE
- AREA DRAIN
- GREASE TRAP
- CLEAN-OUT
- DOUBLE CLEAN-OUT
- GM GAS METER
- WATER METER

STORM DRAIN KEY NOTES:

1. STORM DRAIN INLET.
2. 18" DUAL WALLED HDPE STORM DRAIN PIPE.
3. STORM DRAIN MANHOLE.
4. CONTECH ALUMINIZED 42" CMP UNDERGROUND DETENTION FIELD.
5. CONTECH MWS-L-8-20-V.
6. SANTA FE WATER SYSTEMS STORM WATER DISCHARGE PUMP STATION.
7. 14" WIDE RECTANGULAR CHANNEL.
8. 14" WIDE UNDER SIDEWALK DRAIN PER COUNTY OF RIVERSIDE STANDARD NO. 309.
9. SDR-35 STORM DRAIN PIPE. (SEE NOTE FOR SIZE)
10. DUAL WALLED HDPE STORM DRAIN PIPE. (SEE NOTE FOR SIZE)

PIPING MATERIAL SCHEDULE

STORM SEWER SMALLER THAN 12"	SDR-35 PVC PER ATSM D3034
STORM SEWER – 12" OR LARGER (PRIVATE)	DUAL WALLED HDPE, AASHTO M252 &M294
STORM SEWER – WITHIN PUBLIC EASEMENT OR RIGHT-OF-WAY.	RCP, C-76, CLASS III

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STORM DRAIN PLAN

GREEN BEE CONCRETE
25775 SHERMAN RD.
PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	10/16/24	INITIAL SUBMITTAL	MM

PROJECT NO: JM-GBC24001.0
DRAWN BY: AB, ML, MM
CHECKED BY: MM
ISSUE DATE: 10/16/2024

C 530

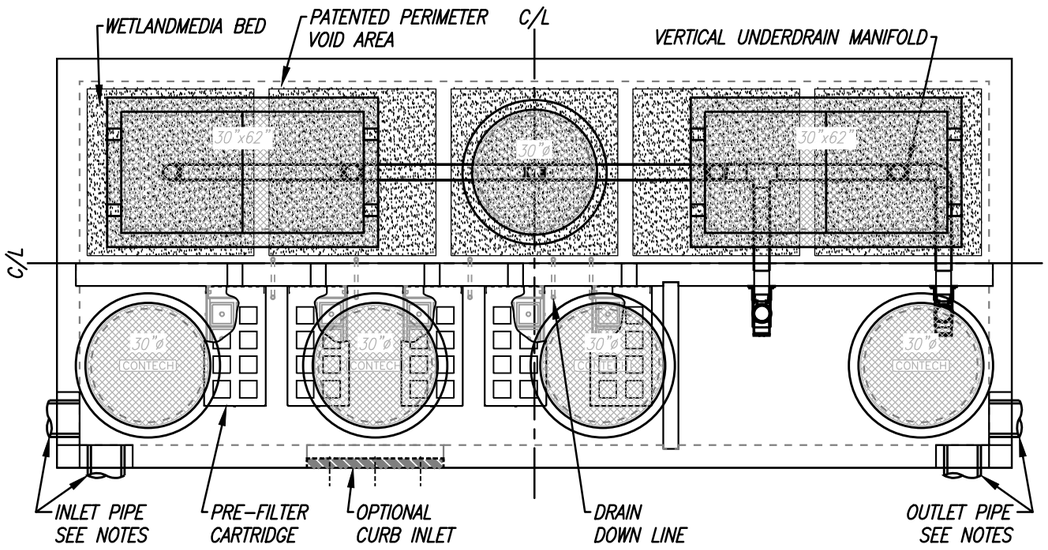
J:\GREEN BEE CONCRETE\JM-GBC24001.0 - PERRIS, CA_CURRENT DRAWINGS\JM-GBC24001 PERRIS CA - MASTER_24X36.DWG 10/16/2024 5:17 PM MICHELLE MAYNARD

SITE SPECIFIC DATA

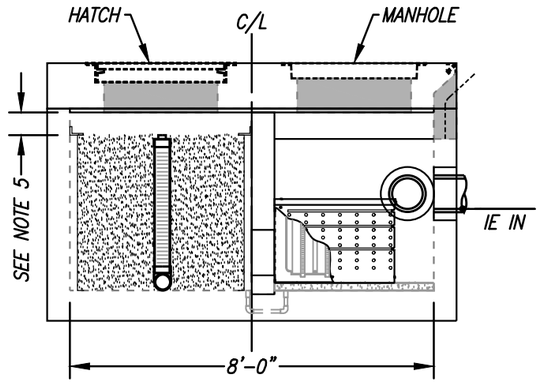
PROJECT NUMBER		JM-GBC24001	
PROJECT NAME		Green Bee Concrete	
PROJECT LOCATION		Perris, CA	
STRUCTURE ID		BMP 1	
TREATMENT REQUIRED			
TREATMENT FLOW (CFS)			
PRETREATMENT LOADING RATE (GPM/SF)			2.1 GPM/SF
WETLAND MEDIA LOADING RATE (GPM/SF)			1.0
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			_____ (CFS)
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	1424.67	HDPE	18"
INLET PIPE 2			
OUTLET PIPE	1423.27	SDR 35	6"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	1432.83	1432.80	1432.76
SURFACE LOAD	PEDESTRIAN		

NOTES: Treats 10,372 cubic feet

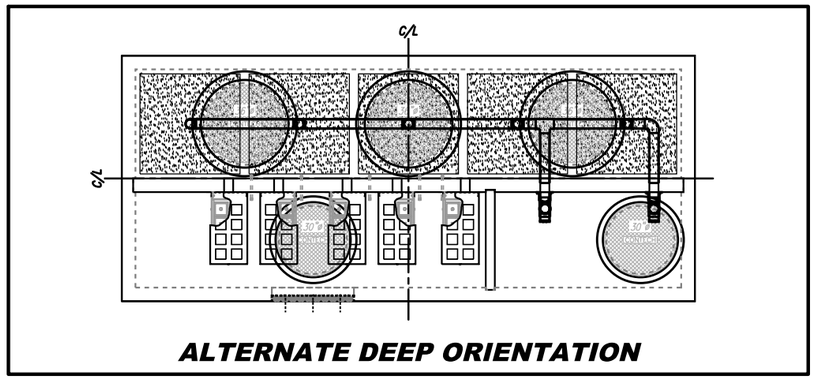
* PRELIMINARY ONLY - NOT FOR CONSTRUCTION



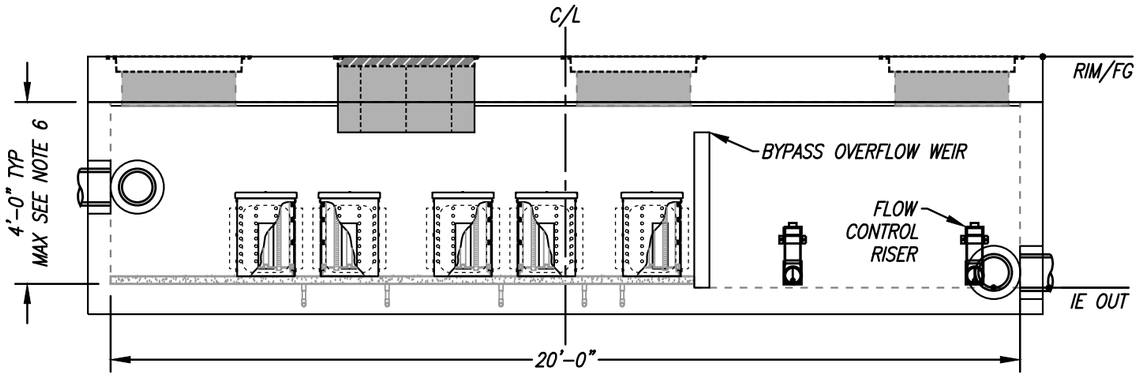
PLAN VIEW



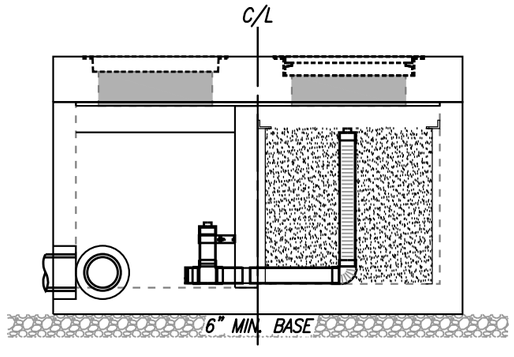
LEFT END VIEW



ALTERNATE DEEP ORIENTATION



ELEVATION VIEW



RIGHT END VIEW

INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
3. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
4. CONTRACTOR RESPONSIBLE FOR CONTACTING CONTECH FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A CONTECH REPRESENTATIVE.
5. ALTERNATE DEEP FRAME & COVER ORIENTATION USED WHEN CEILING TO MEDIA DISTANCE IS 2.5' OR GREATER.
6. VERTICAL HEIGHT VARIES BASED ON SITE SPECIFIC REQUIREMENTS.

MODULAR WETLANDS
FOR PATENT INFORMATION, GO TO www.ContechES.com/IP

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CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

MWS-L-8-20-V-UG
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

Soil Map—Western Riverside Area, California
(Green Bee Concrete)



Map Scale: 1:1,200 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 16, Aug 30, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2022—Mar 17, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MaA	Madera fine sandy loam, 0 to 2 percent slopes	5.5	100.0%
Totals for Area of Interest		**5.5**	**100.0%**

Western Riverside Area, California

MaA—Madera fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hcwt
Elevation: 20 to 250 feet
Mean annual precipitation: 14 inches
Mean annual air temperature: 61 degrees F
Frost-free period: 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Madera and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Madera

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 19 inches: fine sandy loam
H2 - 19 to 26 inches: clay
H3 - 26 to 37 inches: indurated
H4 - 37 to 62 inches: stratified coarse sandy loam to clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches; 20 to 40 inches to duripan
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: D
Ecological site: R019XD061CA - CLAYPAN
Hydric soil rating: No

Minor Components

Unnamed, ponded
Percent of map unit: 3 percent
Landform: Depressions
Hydric soil rating: Yes

Monserate
Percent of map unit: 3 percent
Hydric soil rating: No

Chino
Percent of map unit: 3 percent
Hydric soil rating: No

Willows
Percent of map unit: 3 percent
Hydric soil rating: No

Exeter
Percent of map unit: 3 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 16, Aug 30, 2023

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

R 07 W | R 06 W | R 05 W | R 04 W | R 03 W | R 02 W | R 01 W | R 01 E | R 02 E | R 03 E | R 04 E | R 05 E

T 01 S | T 02 S | T 03 S | T 04 S | T 05 S | T 06 S | T 07 S | T 08 S

0.85 MiraLoma
0.61 RiversideNorth
0.54 RiversideSouth
0.68 PigeonPass
0.66 MorenoEast
0.85 Beaumont
0.88 PradoDam
0.51 Woodcrest
0.50 LakeMathews
0.68 PerrisReservoir
Approx Site Location
0.70 SanJacintoNWS
0.87 VistaGrandeGS
1.18 Idyllwild
0.58 SunCity
0.68 Winchester
0.90 HurkeyCreek
0.70 ElsinoreNWS
1.11 ElCarisoStation
0.77 WildomarLaCresta
0.52 SkinnerLake
0.65 Anza
0.77 SantaRosaPlateau
1.00 TemeculaNWS
0.64 AguangaValley

Santa Ana River Watershed
Santa Margarita Watershed

EASTVALE | JURUPA VALLEY | NORCO | CORONA | RIVERSIDE | MORENO VALLEY | CALIMESA | BEAUMONT | PERRIS | SAN JACINTO | HEMET | CANYON LAKE | LAKE ELSINORE | MENIFEE | WILDOMAR | MURRIETA | TEMECULA

06	05	04	03	02	01
07	08	09	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

N

Rain Gage Locations

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Isohyetal Map for the 85th Percentile 24 hour Storm Event

July 2011

PROJECT NAME **GreenBee Concrete - Perris, CA**

Treatment HGL elevation =	1.4
Outlet elevation =	0
Bottom of media chamber elevation =	0.08
Media operating head, H =	1.32

VOLUME-BASED MWS **MWS-L-8-20**

Given by EOR: V, upstream storage volume = 9,117 ft^3

t, maximum drain down time = 48 hrs

Calc'd by Contech: H, Media Operating Head = 3.40 ft

W, wetted perimeter of media cage = 14.8 ft per cage

N, number of media cages = 5 cages

R, wetlandmedia loading rate = 0.26 gpm/sf

Q_d = discharge flow rate (gpm)

Calculate Q_d, disharge flow rate in gpm.

Then confirm the draindown time, t in hours.

$Q_d = H * W * N * R$

R = 0.26 gpm/sf is a typical value for volume-based MWS. This is a 1:4 safety factor from flow-based MWS, which are typically 1.03 gpm/sf.

$t = V / [Q_d * (0.00222801 \text{ cfs/gpm} * 60 \text{ s/min} * 60 \text{ min/hr})]$

Q_d =	65.42 gpm	=	0.146	cfs
t =	17.4 hrs			

MWS ORIFICE SIZING

Q = vA; Q = treatment flow rate; $v = c_d \sqrt{(2gh)}$; $A = \pi D^2/4$

H, Media Operating Head = 3.4 ft

h, Orifice Operating Head = 3.33 ft

c_d, Discharge coefficient

c_v, Coefficient of velocity = 0.98

c_c, Coefficient of contraction for the orifice = 0.62

$c_d = c_v \times c_c = 0.61$

This unit has 2 underdrain outlets, so c_d = 2 x 0.61 = 1.22

Rewrite to solve for the diameter of the orifice:

$$A = \frac{Q}{V} rewrite \rightarrow \frac{\pi D^2}{4} = \frac{Q}{c_d\sqrt{2gh}}$$

$$D = \sqrt{\frac{4Q}{\pi C_d\sqrt{2gh}}};$$

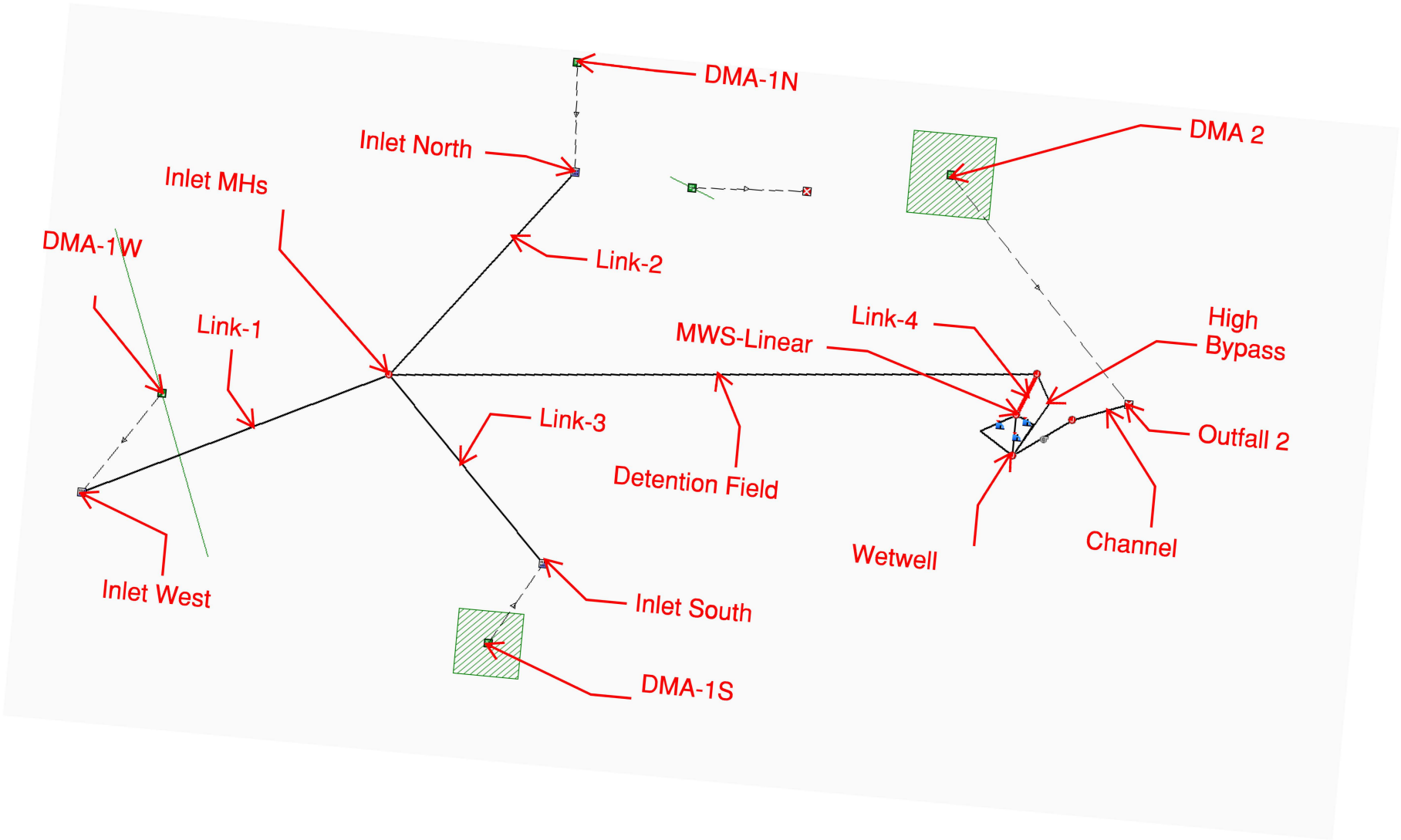
Given Qd = 0.146 cfs , c_d= 1.22 , g = 32.17 ft/s²

$$D = \sqrt{}\left(\frac{4 \times 0.146}{\pi \times 1.22 \times \sqrt{}(2 \times 32.17 \times 3.33)}\right) \times 12 \text{ in/ft} = 1.23 \text{ in}$$

Each orifice shall be 1.23 inches in diameter, and the weir crest for internal bypass, if required, shall be at least 3 feet 6 inches above the outlet chamber floor invert.

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern


DMA-1N
Inlet North
Inlet MHs
DMA-1W
Link-2
Link-1
MWS-Linear
Link-4
High
Bypass
DMA 2
Link-3
Outfall 2
Detention Field
Wetwell
Channel
Inlet West
Inlet South
DMA-1S

```
[TITLE]
Green Bee Concrete Modeling

[OPTIONS]
 FLOW_UNITS            CFS
 SUBBASIN_HYDROGRAPH   SCS TR-55
 TIME_OF_CONCENTRATION SCS TR-55
 LINK_ROUTING          Hydrodynamic
 START_TIME            00:00:00
 REPORT_START_DATE     09/26/2024
 REPORT_START_TIME     00:00:00
 END_DATE              09/28/2024
 END_TIME              00:00:00
 SWEEP_START           01/01
 SWEEP_END             12/31
 REPORT_STEP           00:05:00
 DRY_STEP              01:00:00
 ALLOW_PONDING         YES
 INERTIAL_DAMPING      PARTIAL
 VARIABLE_STEP         1.00
 LENGTHENING_STEP      0
 MIN_SURFAREA          0
 NORMAL_FLOW_LIMITED   BOTH
 SKIP_STEADY_STATE     NO
 FORCE_MAIN_EQUATION   H-W
 LINK_OFFSETS          DEPTH
 MIN_SLOPE             0

[JUNCTIONS]
;;                Invert     Max.       Init.      Surcharge  Ponded
;;Name            Elev.      Depth      Depth      Depth      Area
;;--------------------------------------------------------------------
  INLET MHs       1424.74    6.4        0          0          0
  Jun-03          1432.55    2          0          0          0
  MWS-L           1424.67    7.8        0          0          0
  OUTLET STRUCTURE 1424.74   6.78       0          0          0
  Wetwell         1423.26    8.1        0          0          0

[OUTFALLS]
;;                Invert     Outfall    Stage/Table      Tide
;;Name            Elev.      Type       Time Series      Gate
;;-------------------------------------------------------------
  Out-02          1432.5     NORMAL                      NO
  Out-1           1432.5     NORMAL                      NO

[DIV_INL_PROPS]
;;            Catch.                    Inlet            Ponded     Water            Addnl.
       Bypass       Inlet
;;Name        Inv.Elev.                 Rim Elev.        Area       Sur_Elev.        Inflows
       Link         Location
;;-------------------------------------------------------------------------------------------------
------------------------------
  West        1425.65                   1429.15          914        1425.65          NO
       *               West-BYPASS ON_SAG
  South       1427.73                   1430.23          10         1427.73          NO
       *               South-BYPASS ON_SAG
  North       1426.33                   1429.83          10         1426.33          NO
       *               North-BYPASS ON_SAG

[CONDUITS]
;;                Inlet            Outlet                      Manning    Inlet      Outlet
Init.      Maximum
;;Name            Node             Node             Length     N          Height     Height
Flow       Flow
;;-------------------------------------------------------------------------------------------------
------------------------
  Link-4          OUTLET STRUCTURE MWS-L            13.5       0.015      0          0
```

```
0          0
  Channel          Jun-03           Out-02           6.67       0.032      0          0
0          0
  Link-01          West             INLET MHs        260        0.015      -8553.9    0
0          0
  Detention Field  INLET MHs        OUTLET STRUCTURE 381.5      0.015      0          0
0          0
  Link-3           South            INLET MHs        77         0.015      -8566.38   0
0          0
  Link-2           North            INLET MHs        55         0.015      -7131.65   0
0          0
  High Bypass      OUTLET STRUCTURE Wetwell          14.5       0.015      2.3        2.74
0          0

[PUMPS]
;;                 Inlet            Outlet           Pump             Initial
;;Name             Node             Node             Curve            Status
;;-------------------------------------------------------------------------
  Pump-01          Wetwell          Jun-03           Pump RC-01       ON     1.4      0.5

[ORIFICES]
;;                 Inlet            Outlet                            Invert     Disch.     Flap
 Open/Close
;;Name             Node             Node             Type             Height     Coeff.     Gate
 Time
;;-------------------------------------------------------------------------------------------
  Orifice-02       MWS-L            Wetwell          BOTTOM           0          0.62       NO   0

  Orifice-01       MWS-L            Wetwell          BOTTOM           0          0.62       NO   0


[WEIRS]
;;                 Inlet            Outlet                            Crest      Disch.     Flap End
      End
;;Name             Node             Node             Type             Height     Coeff.     Gate
Coeff.     Con.
;;-------------------------------------------------------------------------------------------------
---------
  MWS Weir         MWS-L            Wetwell          RECTANGULAR      2.25       3.33       NO   0
     2.60

[ROADLINKS]
;;             Link
;;Name         ID
;;-----------------


[XSECTIONS]
;;Link             Type         Geom1      Geom2      Geom3      Geom4      Barrels
CulvertCode
;;-------------------------------------------------------------------------------------------------
------
  Link-4           CIRCULAR     1.500      0          1          1          1
  Channel          RECT_OPEN    0.500      1.167      1          1          1
  Link-01          CIRCULAR     1.500      0          1          1          1
  Detention Field  CIRCULAR     3.500      0          1          1          5
  Link-3           CIRCULAR     1.500      0          1          1          1
  Link-2           CIRCULAR     1.500      0          1          1          1
  High Bypass      CIRCULAR     1.000      0          1          1          1
  Orifice-02       CIRCULAR     0.12       0          0          0
  Orifice-01       CIRCULAR     0.11       0          0          0
  MWS Weir         RECT_OPEN    2.10       3.67       1          1

[LOSSES]
;;Link             Inlet      Outlet     Average    Flap Gate
;;---------------------------------------------------------
  Link-4           0.5        0.5        0          NO
```

```
  Channel          0.5        0.5        0          NO
  Link-01          0.5        0.5        0          NO
  Detention Field  0.5        0.5        0          NO
  Link-3           0.5        0.5        0          NO
  Link-2           0.5        0.5        0          NO
  High Bypass      0.5        0.5        0          NO

[CURVES]
;;Name             Type       X-Value    Y-Value
;;-----------------------------------------------
;Underground pipe storage, 5 barrels, 3.50 ft diameter, 381.5 ft length, 0.00 ft stone base, 0.00
ft additional width on both sides, without stone fill, 40 % stone voids, without headers, with a
total storage volume of 18258.65 ft³
  Storage-01       Storage    0          0.0000
  Storage-01                  0.1        2224.5081
  Storage-01                  0.2        3099.3207
  Storage-01                  0.3        3737.9213
  Storage-01                  0.4        4248.2042
  Storage-01                  0.5        4672.4017
  Storage-01                  0.6        5032.3306
  Storage-01                  0.7        5341.0000
  Storage-01                  0.8        5606.8820
  Storage-01                  0.9        5835.8278
  Storage-01                  1          6032.0446
  Storage-01                  1.1        6198.6413
  Storage-01                  1.2        6337.9540
  Storage-01                  1.3        6451.7504
  Storage-01                  1.4        6541.3624
  Storage-01                  1.5        6607.7738
  Storage-01                  1.6        6651.6798
  Storage-01                  1.7        6673.5244
  Storage-01                  1.8        6673.5244
  Storage-01                  1.9        6651.6798
  Storage-01                  2          6607.7738
  Storage-01                  2.1        6541.3624
  Storage-01                  2.2        6451.7504
  Storage-01                  2.3        6337.9540
  Storage-01                  2.4        6198.6413
  Storage-01                  2.5        6032.0446
  Storage-01                  2.6        5835.8278
  Storage-01                  2.7        5606.8820
  Storage-01                  2.8        5341.0000
  Storage-01                  2.9        5032.3306
  Storage-01                  3          4672.4017
  Storage-01                  3.1        4248.2042
  Storage-01                  3.2        3737.9213
  Storage-01                  3.3        3099.3207
  Storage-01                  3.4        2224.5081
  Storage-01                  3.5        0.0000
  West-BYPASS      INLETCURVE 0          0
  West-BYPASS                 0.914999016392914 0.050000
  West-BYPASS                 2.5880080370818 0.100000
  West-BYPASS                 4.75447435580423 0.150000
  West-BYPASS                 7.31999213114331 0.200000
  West-BYPASS                 11.6039937952414 0.300000
  West-BYPASS                 12.5337458088155 0.350000
  West-BYPASS                 13.3991378827147 0.400000
  West-BYPASS                 14.2119318883817 0.450000
  West-BYPASS                 14.9806915728213 0.500000
  West-BYPASS                 15.711881873283 0.550000
  West-BYPASS                 16.4105254029236 0.600000
  West-BYPASS                 17.0806163823206 0.650000
  West-BYPASS                 17.7253933101638 0.700000
  West-BYPASS                 18.3475251737121 0.750000
  West-BYPASS                 18.9492425178422 0.800000
  West-BYPASS                 19.5324321066272 0.850000
  West-BYPASS                 20.098706824072 0.900000
```

West-BYPASS	20.6494582979796	0.950000
West-BYPASS	21.1858971960123	1.000000
West-BYPASS	21.7090845500219	1.050000
West-BYPASS	22.2199564356009	1.100000
West-BYPASS	22.7193436524914	1.150000
West-BYPASS	23.2079875904827	1.200000
West-BYPASS	23.6865531473028	1.250000
West-BYPASS	24.1556393415699	1.300000
West-BYPASS	24.6157881043854	1.350000
West-BYPASS	25.067491617631	1.400000
West-BYPASS	25.5111984822352	1.450000
West-BYPASS	25.9473189366455	1.500000
West-BYPASS	26.3762292983664	1.550000
West-BYPASS	26.7982757654294	1.600000
West-BYPASS	27.2137776870467	1.650000
West-BYPASS	27.6230303913238	1.700000
West-BYPASS	28.0263076412145	1.750000
West-BYPASS	28.4238637767634	1.800000
West-BYPASS	28.8159355912662	1.850000
West-BYPASS	29.2027439806604	1.900000
West-BYPASS	29.5844953987727	1.950000
West-BYPASS	29.9613831456427	2.000000
West-BYPASS	30.3335885117472	2.050000
West-BYPASS	30.7012817973452	2.100000
West-BYPASS	31.06462322321	2.150000
West-BYPASS	31.4237637465661	2.200000
West-BYPASS	31.7788457940184	2.250000
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West-SPREAD                 13.3991378827147 20
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West-SPREAD                 14.9806915728213 25
West-SPREAD                 15.711881873283 27.5
West-SPREAD                 16.4105254029236 30
West-SPREAD                 17.0806163823206 32.5
West-SPREAD                 17.7253933101638 35
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West-SPREAD                 19.5324321066272 42.5
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South-SPREAD                12.5337458088155 4.96666666666665
South-SPREAD                13.3991378827147 7.46666666666665
South-SPREAD                14.2119318883817 9.96666666666665
South-SPREAD                14.9806915728213 12.4666666666667
South-SPREAD                15.711881873283 14.9666666666667
South-SPREAD                16.4105254029236 17.4666666666666
South-SPREAD                17.0806163823206 19.9666666666667
South-SPREAD                17.7253933101638 22.4666666666666
South-SPREAD                18.3475251737121 24.9666666666666
South-SPREAD                18.9492425178422 27.4666666666667
South-SPREAD                19.5324321066272 29.9666666666666
South-SPREAD                20.098706824072 32.4666666666667
South-SPREAD                20.6494582979796 34.9666666666666
South-SPREAD                21.1858971960123 37.4666666666667
South-SPREAD                21.7090845500219 39.9666666666667
South-SPREAD                22.2199564356009 42.4666666666667
South-SPREAD                22.7193436524914 44.9666666666666
South-SPREAD                23.2079875904827 47.4666666666666
South-SPREAD                23.6865531473028 49.9666666666667
South-SPREAD                24.1556393415699 52.4666666666667
South-SPREAD                24.6157881043854 54.9666666666667
South-SPREAD                25.067491617631 57.4666666666666
South-SPREAD                25.5111984822352 59.9666666666666
South-SPREAD                25.9473189366455 62.4666666666666
South-SPREAD                26.3762292983664 64.9666666666667
South-SPREAD                26.7982757654294 67.4666666666666
South-SPREAD                27.2137776870467 69.9666666666666
South-SPREAD                27.6230303913238 72.4666666666666
South-SPREAD                28.0263076412145 74.9666666666666
South-SPREAD                28.4238637767634 77.4666666666666
South-SPREAD                28.8159355912662 79.9666666666666
South-SPREAD                29.2027439806604 82.4666666666666
South-SPREAD                29.5844953987727 84.9666666666666
South-SPREAD                29.9613831456427 87.4666666666666
South-SPREAD                30.3335885117472 89.9666666666666
South-SPREAD                30.7012817973452 92.4666666666666
South-SPREAD                31.06462322321 94.9666666666666
South-SPREAD                31.4237637465661 97.4666666666666
South-SPREAD                31.7788457940184 99.9666666666666
South-SPREAD                32.1300039215684 102.466666666667
South-SPREAD                32.47736541039 104.966666666667
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South-SPREAD                32.8210508058472 107.466666666667
South-SPREAD                33.1611744062239 109.966666666667
South-SPREAD                33.4978447067867 112.466666666667
South-SPREAD                33.8311648040679 114.966666666667
South-SPREAD                34.1612327646413 117.466666666667
South-SPREAD                34.4881419621295 119.966666666667
South-SPREAD                34.8119813857241 122.466666666667
South-SPREAD                35.1328359231076 124.966666666667
South-SPREAD                35.4507866203276 127.466666666667
South-SPREAD                35.7659109208755 129.966666666667
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South-SPREAD                36.6950503474242 137.466666666667
South-SPREAD                36.9995788084135 139.966666666667
South-SPREAD                37.3016211980123 142.466666666667
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South-SPREAD                37.8984850356845 147.466666666667
South-SPREAD                38.1934193284655 149.966666666667
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South-SPREAD                38.7765586920758 154.966666666667
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South-SPREAD                39.3510575207325 159.966666666667
South-SPREAD                39.6351843694463 162.466666666667
South-SPREAD                39.917288885895 164.966666666667
South-SPREAD                40.1974136481441 167.466666666667
South-SPREAD                40.4755997608436 169.966666666667
South-SPREAD                40.7518869256382 172.466666666667
South-SPREAD                41.0263135073089 174.966666666667
South-SPREAD                41.2989165959593 177.466666666667
South-SPREAD                41.5697320655306 179.966666666667
South-SPREAD                41.8387946289087 182.466666666667
South-SPREAD                42.1061378898611 184.966666666667
South-SPREAD                42.3717943920245 187.466666666667
South-SPREAD                42.635795665145 189.966666666667
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South-SPREAD                43.1589538334747 194.966666666667
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South-SPREAD                44.4399128712017 207.466666666667
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South-SPREAD                45.4386873049827 217.466666666667
South-SPREAD                45.6849692568573 219.966666666667
South-SPREAD                45.9299306335204 222.466666666667
South-SPREAD                46.1735924528296 224.966666666667
South-SPREAD                46.4159751809654 227.466666666667
South-SPREAD                46.6570987524942 229.966666666667
South-SPREAD                46.8969825895014 232.466666666667
South-SPREAD                47.1356456198491 234.966666666667
South-SPREAD                47.3731062946056 237.466666666667

South-FLOWDEPTH  INLETCURVE 0          0

North-BYPASS     INLETCURVE 0          0
North-BYPASS                0.914999016392914 0.050000
North-BYPASS                2.5880080370818 0.100000
North-BYPASS                4.75447435580423 0.150000
North-BYPASS                7.31999213114331 0.200000
North-BYPASS                11.6039937952414 0.300000
North-BYPASS                12.5337458088155 0.350000
North-BYPASS                13.3991378827147 0.400000
North-BYPASS                14.2119318883817 0.450000
North-BYPASS                14.9806915728213 0.500000
North-BYPASS                15.711881873283 0.550000
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North-BYPASS	16.4105254029236	0.600000
North-BYPASS	17.0806163823206	0.650000
North-BYPASS	17.7253933101638	0.700000
North-BYPASS	18.3475251737121	0.750000
North-BYPASS	18.9492425178422	0.800000
North-BYPASS	19.5324321066272	0.850000
North-BYPASS	20.098706824072	0.900000
North-BYPASS	20.6494582979796	0.950000
North-BYPASS	21.1858971960123	1.000000
North-BYPASS	21.7090845500219	1.050000
North-BYPASS	22.2199564356009	1.100000
North-BYPASS	22.7193436524914	1.150000
North-BYPASS	23.2079875904827	1.200000
North-BYPASS	23.6865531473028	1.250000
North-BYPASS	24.1556393415699	1.300000
North-BYPASS	24.6157881043854	1.350000
North-BYPASS	25.067491617631	1.400000
North-BYPASS	25.5111984822352	1.450000
North-BYPASS	25.9473189366455	1.500000
North-BYPASS	26.3762292983664	1.550000
North-BYPASS	26.7982757654294	1.600000
North-BYPASS	27.2137776870467	1.650000
North-BYPASS	27.6230303913238	1.700000
North-BYPASS	28.0263076412145	1.750000
North-BYPASS	28.4238637767634	1.800000
North-BYPASS	28.8159355912662	1.850000
North-BYPASS	29.2027439806604	1.900000
North-BYPASS	29.5844953987727	1.950000
North-BYPASS	29.9613831456427	2.000000
North-BYPASS	30.3335885117472	2.050000
North-BYPASS	30.7012817973452	2.100000
North-BYPASS	31.06462322321	2.150000
North-BYPASS	31.4237637465661	2.200000
North-BYPASS	31.7788457940184	2.250000
North-BYPASS	32.1300039215684	2.300000
North-BYPASS	32.47736541039	2.350000
North-BYPASS	32.8210508058472	2.400000
North-BYPASS	33.1611744062239	2.450000
North-BYPASS	33.4978447067867	2.500000
North-BYPASS	33.8311648040679	2.550000
North-BYPASS	34.1612327646413	2.600000
North-BYPASS	34.4881419621295	2.650000
North-BYPASS	34.8119813857241	2.700000
North-BYPASS	35.1328359231076	2.750000
North-BYPASS	35.4507866203276	2.800000
North-BYPASS	35.7659109208755	2.850000
North-BYPASS	36.078282885969	2.900000
North-BYPASS	36.3879733978137	2.950000
North-BYPASS	36.6950503474242	3.000000
North-BYPASS	36.9995788084135	3.050000
North-BYPASS	37.3016211980123	3.100000
North-BYPASS	37.6012374264465	3.150000
North-BYPASS	37.8984850356845	3.200000
North-BYPASS	38.1934193284655	3.250000
North-BYPASS	38.4860934884277	3.300000
North-BYPASS	38.7765586920758	3.350000
North-BYPASS	39.0648642132543	3.400000
North-BYPASS	39.3510575207325	3.450000
North-BYPASS	39.6351843694463	3.500000
North-BYPASS	39.917288885895	3.550000
North-BYPASS	40.1974136481441	3.600000
North-BYPASS	40.4755997608436	3.650000
North-BYPASS	40.7518869256382	3.700000
North-BYPASS	41.0263135073089	3.750000
North-BYPASS	41.2989165959593	3.800000
North-BYPASS	41.5697320655306	3.850000
North-BYPASS	41.8387946289087	3.900000

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North-BYPASS                42.1061378898611 3.950000
North-BYPASS                42.3717943920245 4.000000
North-BYPASS                42.635795665145 4.050000
North-BYPASS                42.8981722687576 4.100000
North-BYPASS                43.1589538334747 4.150000
North-BYPASS                43.4181691000438 4.200000
North-BYPASS                43.6758459563178 4.250000
North-BYPASS                43.9320114722738 4.300000
North-BYPASS                44.1866919332054 4.350000
North-BYPASS                44.4399128712017 4.400000
North-BYPASS                44.6916990950221 4.450000
North-BYPASS                44.942074718464 4.500000
North-BYPASS                45.1910631873161 4.550000
North-BYPASS                45.4386873049827 4.600000
North-BYPASS                45.6849692568573 4.650000
North-BYPASS                45.9299306335204 4.700000
North-BYPASS                46.1735924528296 4.750000
North-BYPASS                46.4159751809654 4.800000
North-BYPASS                46.6570987524942 4.850000
North-BYPASS                46.8969825895014 4.900000
North-BYPASS                47.1356456198491 4.950000
North-BYPASS                47.3731062946056 5.000000

North-INTERCEPTED INLETCURVE 0          0
North-INTERCEPTED             0.914999016392914 0
North-INTERCEPTED             2.5880080370818 0
North-INTERCEPTED             4.75447435580423 0
North-INTERCEPTED             7.31999213114331 0
North-INTERCEPTED             11.6039937952414 0
North-INTERCEPTED             12.5337458088155 0
North-INTERCEPTED             13.3991378827147 0
North-INTERCEPTED             14.2119318883817 0
North-INTERCEPTED             14.9806915728213 0
North-INTERCEPTED             15.711881873283 0
North-INTERCEPTED             16.4105254029236 0
North-INTERCEPTED             17.0806163823206 0
North-INTERCEPTED             17.7253933101638 0
North-INTERCEPTED             18.3475251737121 0
North-INTERCEPTED             18.9492425178422 0
North-INTERCEPTED             19.5324321066272 0
North-INTERCEPTED             20.098706824072 0
North-INTERCEPTED             20.6494582979796 0
North-INTERCEPTED             21.1858971960123 0
North-INTERCEPTED             21.7090845500219 0
North-INTERCEPTED             22.2199564356009 0
North-INTERCEPTED             22.7193436524914 0
North-INTERCEPTED             23.2079875904827 0
North-INTERCEPTED             23.6865531473028 0
North-INTERCEPTED             24.1556393415699 0
North-INTERCEPTED             24.6157881043854 0
North-INTERCEPTED             25.067491617631 0
North-INTERCEPTED             25.5111984822352 0
North-INTERCEPTED             25.9473189366455 0
North-INTERCEPTED             26.3762292983664 0
North-INTERCEPTED             26.7982757654294 0
North-INTERCEPTED             27.2137776870467 0
North-INTERCEPTED             27.6230303913238 0
North-INTERCEPTED             28.0263076412145 0
North-INTERCEPTED             28.4238637767634 0
North-INTERCEPTED             28.8159355912662 0
North-INTERCEPTED             29.2027439806604 0
North-INTERCEPTED             29.5844953987727 0
North-INTERCEPTED             29.9613831456427 0
North-INTERCEPTED             30.3335885117472 0
North-INTERCEPTED             30.7012817973452 0
North-INTERCEPTED             31.06462322321 0
North-INTERCEPTED             31.4237637465661 0
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North-INTERCEPTED            31.7788457940184 0
North-INTERCEPTED            32.1300039215684 0
North-INTERCEPTED            32.47736541039 0
North-INTERCEPTED            32.8210508058472 0
North-INTERCEPTED            33.1611744062239 0
North-INTERCEPTED            33.4978447067867 0
North-INTERCEPTED            33.8311648040679 0
North-INTERCEPTED            34.1612327646413 0
North-INTERCEPTED            34.4881419621295 0
North-INTERCEPTED            34.8119813857241 0
North-INTERCEPTED            35.1328359231076 0
North-INTERCEPTED            35.4507866203276 0
North-INTERCEPTED            35.7659109208755 0
North-INTERCEPTED            36.078282885969 0
North-INTERCEPTED            36.3879733978137 0
North-INTERCEPTED            36.6950503474242 0
North-INTERCEPTED            36.9995788084135 0
North-INTERCEPTED            37.3016211980123 0
North-INTERCEPTED            37.6012374264465 0
North-INTERCEPTED            37.8984850356845 0
North-INTERCEPTED            38.1934193284655 0
North-INTERCEPTED            38.4860934884277 0
North-INTERCEPTED            38.7765586920758 0
North-INTERCEPTED            39.0648642132543 0
North-INTERCEPTED            39.3510575207325 0
North-INTERCEPTED            39.6351843694463 0
North-INTERCEPTED            39.917288885895 0
North-INTERCEPTED            40.1974136481441 0
North-INTERCEPTED            40.4755997608436 0
North-INTERCEPTED            40.7518869256382 0
North-INTERCEPTED            41.0263135073089 0
North-INTERCEPTED            41.2989165959593 0
North-INTERCEPTED            41.5697320655306 0
North-INTERCEPTED            41.8387946289087 0
North-INTERCEPTED            42.1061378898611 0
North-INTERCEPTED            42.3717943920245 0
North-INTERCEPTED            42.635795665145 0
North-INTERCEPTED            42.8981722687576 0
North-INTERCEPTED            43.1589538334747 0
North-INTERCEPTED            43.4181691000438 0
North-INTERCEPTED            43.6758459563178 0
North-INTERCEPTED            43.9320114722738 0
North-INTERCEPTED            44.1866919332054 0
North-INTERCEPTED            44.4399128712017 0
North-INTERCEPTED            44.6916990950221 0
North-INTERCEPTED            44.942074718464 0
North-INTERCEPTED            45.1910631873161 0
North-INTERCEPTED            45.4386873049827 0
North-INTERCEPTED            45.6849692568573 0
North-INTERCEPTED            45.9299306335204 0
North-INTERCEPTED            46.1735924528296 0
North-INTERCEPTED            46.4159751809654 0
North-INTERCEPTED            46.6570987524942 0
North-INTERCEPTED            46.8969825895014 0
North-INTERCEPTED            47.1356456198491 0
North-INTERCEPTED            47.3731062946056 0

North-SPREAD     INLETCURVE 0          0
North-SPREAD                0.914999016392914 0.0
North-SPREAD                2.5880080370818 0.0
North-SPREAD                4.75447435580423 0.0
North-SPREAD                7.31999213114331 0.0
North-SPREAD                11.6039937952414 2.46666666666665
North-SPREAD                12.5337458088155 4.96666666666665
North-SPREAD                13.3991378827147 7.46666666666665
North-SPREAD                14.2119318883817 9.96666666666665
North-SPREAD                14.9806915728213 12.4666666666667
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North-SPREAD	15.711881873283	14.9666666666667
North-SPREAD	16.4105254029236	17.4666666666666
North-SPREAD	17.0806163823206	19.9666666666667
North-SPREAD	17.7253933101638	22.4666666666666
North-SPREAD	18.3475251737121	24.9666666666666
North-SPREAD	18.9492425178422	27.4666666666667
North-SPREAD	19.5324321066272	29.9666666666666
North-SPREAD	20.098706824072	32.4666666666667
North-SPREAD	20.6494582979796	34.9666666666666
North-SPREAD	21.1858971960123	37.4666666666667
North-SPREAD	21.7090845500219	39.9666666666667
North-SPREAD	22.2199564356009	42.4666666666667
North-SPREAD	22.7193436524914	44.9666666666666
North-SPREAD	23.2079875904827	47.4666666666666
North-SPREAD	23.6865531473028	49.9666666666667
North-SPREAD	24.1556393415699	52.4666666666667
North-SPREAD	24.6157881043854	54.9666666666667
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North-SPREAD	27.6230303913238	72.4666666666666
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North-SPREAD	28.4238637767634	77.4666666666666
North-SPREAD	28.8159355912662	79.9666666666666
North-SPREAD	29.2027439806604	82.4666666666666
North-SPREAD	29.5844953987727	84.9666666666666
North-SPREAD	29.9613831456427	87.4666666666666
North-SPREAD	30.3335885117472	89.9666666666666
North-SPREAD	30.7012817973452	92.4666666666666
North-SPREAD	31.06462322321	94.9666666666666
North-SPREAD	31.4237637465661	97.4666666666666
North-SPREAD	31.7788457940184	99.9666666666666
North-SPREAD	32.1300039215684	102.466666666667
North-SPREAD	32.47736541039	104.966666666667
North-SPREAD	32.8210508058472	107.466666666667
North-SPREAD	33.1611744062239	109.966666666667
North-SPREAD	33.4978447067867	112.466666666667
North-SPREAD	33.8311648040679	114.966666666667
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North-SPREAD	34.8119813857241	122.466666666667
North-SPREAD	35.1328359231076	124.966666666667
North-SPREAD	35.4507866203276	127.466666666667
North-SPREAD	35.7659109208755	129.966666666667
North-SPREAD	36.078282885969	132.466666666667
North-SPREAD	36.3879733978137	134.966666666667
North-SPREAD	36.6950503474242	137.466666666667
North-SPREAD	36.9995788084135	139.966666666667
North-SPREAD	37.3016211980123	142.466666666667
North-SPREAD	37.6012374264465	144.966666666667
North-SPREAD	37.8984850356845	147.466666666667
North-SPREAD	38.1934193284655	149.966666666667
North-SPREAD	38.4860934884277	152.466666666667
North-SPREAD	38.7765586920758	154.966666666667
North-SPREAD	39.0648642132543	157.466666666667
North-SPREAD	39.3510575207325	159.966666666667
North-SPREAD	39.6351843694463	162.466666666667
North-SPREAD	39.917288885895	164.966666666667
North-SPREAD	40.1974136481441	167.466666666667
North-SPREAD	40.4755997608436	169.966666666667
North-SPREAD	40.7518869256382	172.466666666667
North-SPREAD	41.0263135073089	174.966666666667
North-SPREAD	41.2989165959593	177.466666666667
North-SPREAD	41.5697320655306	179.966666666667

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  North-SPREAD                41.8387946289087 182.466666666667
  North-SPREAD                42.1061378898611 184.966666666667
  North-SPREAD                42.3717943920245 187.466666666667
  North-SPREAD                42.635795665145 189.966666666667
  North-SPREAD                42.8981722687576 192.466666666667
  North-SPREAD                43.1589538334747 194.966666666667
  North-SPREAD                43.4181691000438 197.466666666667
  North-SPREAD                43.6758459563178 199.966666666667
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  North-SPREAD                44.6916990950221 209.966666666667
  North-SPREAD                44.942074718464 212.466666666667
  North-SPREAD                45.1910631873161 214.966666666667
  North-SPREAD                45.4386873049827 217.466666666667
  North-SPREAD                45.6849692568573 219.966666666667
  North-SPREAD                45.9299306335204 222.466666666667
  North-SPREAD                46.1735924528296 224.966666666667
  North-SPREAD                46.4159751809654 227.466666666667
  North-SPREAD                46.6570987524942 229.966666666667
  North-SPREAD                46.8969825895014 232.466666666667
  North-SPREAD                47.1356456198491 234.966666666667
  North-SPREAD                47.3731062946056 237.466666666667

  North-FLOWDEPTH   INLETCURVE 0           0

  Pump RC-01        Pump2      0           0.811
  Pump RC-01                   100         0.811

[TIMESERIES]
;;Name              Date       Time        Value
;;--------------------------------------------------
;2-year intensity storm for Riverside (Wildomar) County, California, with a total rainfall amount
of 1.6 in using a SCS Type I 24-hr storm distribution.
  TS-01                        0:00        0.00000
  TS-01                        0:06        0.02786
  TS-01                        0:12        0.02787
  TS-01                        0:18        0.02789
  TS-01                        0:24        0.02790
  TS-01                        0:30        0.02792
  TS-01                        0:36        0.02794
  TS-01                        0:42        0.02795
  TS-01                        0:48        0.02797
  TS-01                        0:54        0.02798
  TS-01                        1:00        0.02800
  TS-01                        1:06        0.02802
  TS-01                        1:12        0.02803
  TS-01                        1:18        0.02805
  TS-01                        1:24        0.02806
  TS-01                        1:30        0.02808
  TS-01                        1:36        0.02810
  TS-01                        1:42        0.02811
  TS-01                        1:48        0.02813
  TS-01                        1:54        0.02814
  TS-01                        2:00        0.02816
  TS-01                        2:06        0.02851
  TS-01                        2:12        0.02898
  TS-01                        2:18        0.02944
  TS-01                        2:24        0.02990
  TS-01                        2:30        0.03037
  TS-01                        2:36        0.03083
  TS-01                        2:42        0.03130
  TS-01                        2:48        0.03176
  TS-01                        2:54        0.03222
  TS-01                        3:00        0.03269
  TS-01                        3:06        0.03315
  TS-01                        3:12        0.03362
```

TS-01	3:18	0.03408
TS-01	3:24	0.03454
TS-01	3:30	0.03501
TS-01	3:36	0.03547
TS-01	3:42	0.03594
TS-01	3:48	0.03640
TS-01	3:54	0.03686
TS-01	4:00	0.03733
TS-01	4:06	0.03757
TS-01	4:12	0.03774
TS-01	4:18	0.03792
TS-01	4:24	0.03810
TS-01	4:30	0.03827
TS-01	4:36	0.03845
TS-01	4:42	0.03862
TS-01	4:48	0.03880
TS-01	4:54	0.03898
TS-01	5:00	0.03915
TS-01	5:06	0.03933
TS-01	5:12	0.03950
TS-01	5:18	0.03968
TS-01	5:24	0.03986
TS-01	5:30	0.04003
TS-01	5:36	0.04021
TS-01	5:42	0.04038
TS-01	5:48	0.04056
TS-01	5:54	0.04074
TS-01	6:00	0.04091
TS-01	6:06	0.04226
TS-01	6:12	0.04398
TS-01	6:18	0.04571
TS-01	6:24	0.04744
TS-01	6:30	0.04917
TS-01	6:36	0.05090
TS-01	6:42	0.05262
TS-01	6:48	0.05435
TS-01	6:54	0.05608
TS-01	7:00	0.05781
TS-01	7:06	0.05862
TS-01	7:12	0.05914
TS-01	7:18	0.05965
TS-01	7:24	0.06016
TS-01	7:30	0.06067
TS-01	7:36	0.06118
TS-01	7:42	0.06170
TS-01	7:48	0.06221
TS-01	7:54	0.06272
TS-01	8:00	0.06323
TS-01	8:06	0.06835
TS-01	8:12	0.07501
TS-01	8:18	0.08166
TS-01	8:24	0.08832
TS-01	8:30	0.09498
TS-01	8:36	0.10125
TS-01	8:42	0.10739
TS-01	8:48	0.11354
TS-01	8:54	0.11968
TS-01	9:00	0.12582
TS-01	9:06	0.13619
TS-01	9:12	0.14797
TS-01	9:18	0.15974
TS-01	9:24	0.17152
TS-01	9:30	0.18330
TS-01	9:36	0.30106
TS-01	9:42	0.45414
TS-01	9:48	0.82698
TS-01	9:54	1.24317

TS-01	10:00	0.60349
TS-01	10:06	0.26800
TS-01	10:12	0.23920
TS-01	10:18	0.21040
TS-01	10:24	0.18160
TS-01	10:30	0.15280
TS-01	10:36	0.14032
TS-01	10:42	0.13328
TS-01	10:48	0.12624
TS-01	10:54	0.11920
TS-01	11:00	0.11216
TS-01	11:06	0.10848
TS-01	11:12	0.10592
TS-01	11:18	0.10336
TS-01	11:24	0.10080
TS-01	11:30	0.09824
TS-01	11:36	0.09568
TS-01	11:42	0.09312
TS-01	11:48	0.09056
TS-01	11:54	0.08800
TS-01	12:00	0.08544
TS-01	12:06	0.08360
TS-01	12:12	0.08200
TS-01	12:18	0.08040
TS-01	12:24	0.07880
TS-01	12:30	0.07720
TS-01	12:36	0.07560
TS-01	12:42	0.07400
TS-01	12:48	0.07240
TS-01	12:54	0.07080
TS-01	13:00	0.06920
TS-01	13:06	0.06760
TS-01	13:12	0.06600
TS-01	13:18	0.06440
TS-01	13:24	0.06280
TS-01	13:30	0.06120
TS-01	13:36	0.05960
TS-01	13:42	0.05800
TS-01	13:48	0.05640
TS-01	13:54	0.05480
TS-01	14:00	0.05320
TS-01	14:06	0.05256
TS-01	14:12	0.05224
TS-01	14:18	0.05192
TS-01	14:24	0.05160
TS-01	14:30	0.05128
TS-01	14:36	0.05096
TS-01	14:42	0.05064
TS-01	14:48	0.05032
TS-01	14:54	0.05000
TS-01	15:00	0.04968
TS-01	15:06	0.04936
TS-01	15:12	0.04904
TS-01	15:18	0.04872
TS-01	15:24	0.04840
TS-01	15:30	0.04808
TS-01	15:36	0.04776
TS-01	15:42	0.04744
TS-01	15:48	0.04712
TS-01	15:54	0.04680
TS-01	16:00	0.04648
TS-01	16:06	0.04616
TS-01	16:12	0.04584
TS-01	16:18	0.04552
TS-01	16:24	0.04520
TS-01	16:30	0.04488
TS-01	16:36	0.04456

TS-01	16:42	0.04424
TS-01	16:48	0.04392
TS-01	16:54	0.04360
TS-01	17:00	0.04328
TS-01	17:06	0.04296
TS-01	17:12	0.04264
TS-01	17:18	0.04232
TS-01	17:24	0.04200
TS-01	17:30	0.04168
TS-01	17:36	0.04136
TS-01	17:42	0.04104
TS-01	17:48	0.04072
TS-01	17:54	0.04040
TS-01	18:00	0.04008
TS-01	18:06	0.03976
TS-01	18:12	0.03944
TS-01	18:18	0.03912
TS-01	18:24	0.03880
TS-01	18:30	0.03848
TS-01	18:36	0.03816
TS-01	18:42	0.03784
TS-01	18:48	0.03752
TS-01	18:54	0.03720
TS-01	19:00	0.03688
TS-01	19:06	0.03656
TS-01	19:12	0.03624
TS-01	19:18	0.03592
TS-01	19:24	0.03560
TS-01	19:30	0.03528
TS-01	19:36	0.03496
TS-01	19:42	0.03464
TS-01	19:48	0.03432
TS-01	19:54	0.03400
TS-01	20:00	0.03368
TS-01	20:06	0.03336
TS-01	20:12	0.03304
TS-01	20:18	0.03272
TS-01	20:24	0.03240
TS-01	20:30	0.03208
TS-01	20:36	0.03176
TS-01	20:42	0.03144
TS-01	20:48	0.03112
TS-01	20:54	0.03080
TS-01	21:00	0.03048
TS-01	21:06	0.03016
TS-01	21:12	0.02984
TS-01	21:18	0.02952
TS-01	21:24	0.02920
TS-01	21:30	0.02888
TS-01	21:36	0.02856
TS-01	21:42	0.02824
TS-01	21:48	0.02792
TS-01	21:54	0.02760
TS-01	22:00	0.02728
TS-01	22:06	0.02696
TS-01	22:12	0.02664
TS-01	22:18	0.02632
TS-01	22:24	0.02600
TS-01	22:30	0.02568
TS-01	22:36	0.02536
TS-01	22:42	0.02504
TS-01	22:48	0.02472
TS-01	22:54	0.02440
TS-01	23:00	0.02408
TS-01	23:06	0.02376
TS-01	23:12	0.02344
TS-01	23:18	0.02312

```
  TS-01                    23:24      0.02280
  TS-01                    23:30      0.02248
  TS-01                    23:36      0.02216
  TS-01                    23:42      0.02184
  TS-01                    23:48      0.02152
  TS-01                    23:54      0.02120
  TS-01                    24:00      0.02088

;100-year intensity storm for Riverside (Wildomar) County, California, with a total rainfall
amount of 4 in using a SCS Type I 24-hr storm distribution.
  TS-02                    0:00       0.00000
  TS-02                    0:06       0.06964
  TS-02                    0:12       0.06968
  TS-02                    0:18       0.06972
  TS-02                    0:24       0.06976
  TS-02                    0:30       0.06980
  TS-02                    0:36       0.06984
  TS-02                    0:42       0.06988
  TS-02                    0:48       0.06992
  TS-02                    0:54       0.06996
  TS-02                    1:00       0.07000
  TS-02                    1:06       0.07004
  TS-02                    1:12       0.07008
  TS-02                    1:18       0.07012
  TS-02                    1:24       0.07016
  TS-02                    1:30       0.07020
  TS-02                    1:36       0.07024
  TS-02                    1:42       0.07028
  TS-02                    1:48       0.07032
  TS-02                    1:54       0.07036
  TS-02                    2:00       0.07040
  TS-02                    2:06       0.07128
  TS-02                    2:12       0.07244
  TS-02                    2:18       0.07360
  TS-02                    2:24       0.07476
  TS-02                    2:30       0.07592
  TS-02                    2:36       0.07708
  TS-02                    2:42       0.07824
  TS-02                    2:48       0.07940
  TS-02                    2:54       0.08056
  TS-02                    3:00       0.08172
  TS-02                    3:06       0.08288
  TS-02                    3:12       0.08404
  TS-02                    3:18       0.08520
  TS-02                    3:24       0.08636
  TS-02                    3:30       0.08752
  TS-02                    3:36       0.08868
  TS-02                    3:42       0.08984
  TS-02                    3:48       0.09100
  TS-02                    3:54       0.09216
  TS-02                    4:00       0.09332
  TS-02                    4:06       0.09392
  TS-02                    4:12       0.09436
  TS-02                    4:18       0.09480
  TS-02                    4:24       0.09524
  TS-02                    4:30       0.09568
  TS-02                    4:36       0.09612
  TS-02                    4:42       0.09656
  TS-02                    4:48       0.09700
  TS-02                    4:54       0.09744
  TS-02                    5:00       0.09788
  TS-02                    5:06       0.09832
  TS-02                    5:12       0.09876
  TS-02                    5:18       0.09920
  TS-02                    5:24       0.09964
  TS-02                    5:30       0.10008
  TS-02                    5:36       0.10052
```

TS-02	5:42	0.10096
TS-02	5:48	0.10140
TS-02	5:54	0.10184
TS-02	6:00	0.10228
TS-02	6:06	0.10564
TS-02	6:12	0.10996
TS-02	6:18	0.11428
TS-02	6:24	0.11860
TS-02	6:30	0.12292
TS-02	6:36	0.12724
TS-02	6:42	0.13156
TS-02	6:48	0.13588
TS-02	6:54	0.14020
TS-02	7:00	0.14452
TS-02	7:06	0.14656
TS-02	7:12	0.14784
TS-02	7:18	0.14912
TS-02	7:24	0.15040
TS-02	7:30	0.15168
TS-02	7:36	0.15296
TS-02	7:42	0.15424
TS-02	7:48	0.15552
TS-02	7:54	0.15680
TS-02	8:00	0.15808
TS-02	8:06	0.17088
TS-02	8:12	0.18752
TS-02	8:18	0.20416
TS-02	8:24	0.22080
TS-02	8:30	0.23744
TS-02	8:36	0.25312
TS-02	8:42	0.26848
TS-02	8:48	0.28384
TS-02	8:54	0.29920
TS-02	9:00	0.31456
TS-02	9:06	0.34048
TS-02	9:12	0.36992
TS-02	9:18	0.39936
TS-02	9:24	0.42880
TS-02	9:30	0.45824
TS-02	9:36	0.75264
TS-02	9:42	1.13536
TS-02	9:48	2.06744
TS-02	9:54	3.10792
TS-02	10:00	1.50872
TS-02	10:06	0.67000
TS-02	10:12	0.59800
TS-02	10:18	0.52600
TS-02	10:24	0.45400
TS-02	10:30	0.38200
TS-02	10:36	0.35080
TS-02	10:42	0.33320
TS-02	10:48	0.31560
TS-02	10:54	0.29800
TS-02	11:00	0.28040
TS-02	11:06	0.27120
TS-02	11:12	0.26480
TS-02	11:18	0.25840
TS-02	11:24	0.25200
TS-02	11:30	0.24560
TS-02	11:36	0.23920
TS-02	11:42	0.23280
TS-02	11:48	0.22640
TS-02	11:54	0.22000
TS-02	12:00	0.21360
TS-02	12:06	0.20900
TS-02	12:12	0.20500
TS-02	12:18	0.20100

TS-02	12:24	0.19700
TS-02	12:30	0.19300
TS-02	12:36	0.18900
TS-02	12:42	0.18500
TS-02	12:48	0.18100
TS-02	12:54	0.17700
TS-02	13:00	0.17300
TS-02	13:06	0.16900
TS-02	13:12	0.16500
TS-02	13:18	0.16100
TS-02	13:24	0.15700
TS-02	13:30	0.15300
TS-02	13:36	0.14900
TS-02	13:42	0.14500
TS-02	13:48	0.14100
TS-02	13:54	0.13700
TS-02	14:00	0.13300
TS-02	14:06	0.13140
TS-02	14:12	0.13060
TS-02	14:18	0.12980
TS-02	14:24	0.12900
TS-02	14:30	0.12820
TS-02	14:36	0.12740
TS-02	14:42	0.12660
TS-02	14:48	0.12580
TS-02	14:54	0.12500
TS-02	15:00	0.12420
TS-02	15:06	0.12340
TS-02	15:12	0.12260
TS-02	15:18	0.12180
TS-02	15:24	0.12100
TS-02	15:30	0.12020
TS-02	15:36	0.11940
TS-02	15:42	0.11860
TS-02	15:48	0.11780
TS-02	15:54	0.11700
TS-02	16:00	0.11620
TS-02	16:06	0.11540
TS-02	16:12	0.11460
TS-02	16:18	0.11380
TS-02	16:24	0.11300
TS-02	16:30	0.11220
TS-02	16:36	0.11140
TS-02	16:42	0.11060
TS-02	16:48	0.10980
TS-02	16:54	0.10900
TS-02	17:00	0.10820
TS-02	17:06	0.10740
TS-02	17:12	0.10660
TS-02	17:18	0.10580
TS-02	17:24	0.10500
TS-02	17:30	0.10420
TS-02	17:36	0.10340
TS-02	17:42	0.10260
TS-02	17:48	0.10180
TS-02	17:54	0.10100
TS-02	18:00	0.10020
TS-02	18:06	0.09940
TS-02	18:12	0.09860
TS-02	18:18	0.09780
TS-02	18:24	0.09700
TS-02	18:30	0.09620
TS-02	18:36	0.09540
TS-02	18:42	0.09460
TS-02	18:48	0.09380
TS-02	18:54	0.09300
TS-02	19:00	0.09220

```
  TS-02                         19:06       0.09140
  TS-02                         19:12       0.09060
  TS-02                         19:18       0.08980
  TS-02                         19:24       0.08900
  TS-02                         19:30       0.08820
  TS-02                         19:36       0.08740
  TS-02                         19:42       0.08660
  TS-02                         19:48       0.08580
  TS-02                         19:54       0.08500
  TS-02                         20:00       0.08420
  TS-02                         20:06       0.08340
  TS-02                         20:12       0.08260
  TS-02                         20:18       0.08180
  TS-02                         20:24       0.08100
  TS-02                         20:30       0.08020
  TS-02                         20:36       0.07940
  TS-02                         20:42       0.07860
  TS-02                         20:48       0.07780
  TS-02                         20:54       0.07700
  TS-02                         21:00       0.07620
  TS-02                         21:06       0.07540
  TS-02                         21:12       0.07460
  TS-02                         21:18       0.07380
  TS-02                         21:24       0.07300
  TS-02                         21:30       0.07220
  TS-02                         21:36       0.07140
  TS-02                         21:42       0.07060
  TS-02                         21:48       0.06980
  TS-02                         21:54       0.06900
  TS-02                         22:00       0.06820
  TS-02                         22:06       0.06740
  TS-02                         22:12       0.06660
  TS-02                         22:18       0.06580
  TS-02                         22:24       0.06500
  TS-02                         22:30       0.06420
  TS-02                         22:36       0.06340
  TS-02                         22:42       0.06260
  TS-02                         22:48       0.06180
  TS-02                         22:54       0.06100
  TS-02                         23:00       0.06020
  TS-02                         23:06       0.05940
  TS-02                         23:12       0.05860
  TS-02                         23:18       0.05780
  TS-02                         23:24       0.05700
  TS-02                         23:30       0.05620
  TS-02                         23:36       0.05540
  TS-02                         23:42       0.05460
  TS-02                         23:48       0.05380
  TS-02                         23:54       0.05300
  TS-02                         24:00       0.05220

;10-year intensity storm for Riverside (Wildomar) County, California, with a total rainfall
amount of 2.45 in using a SCS Type I 24-hr storm distribution.
  TS-10                         0:00        0.00000
  TS-10                         0:06        0.04265
  TS-10                         0:12        0.04268
  TS-10                         0:18        0.04270
  TS-10                         0:24        0.04273
  TS-10                         0:30        0.04275
  TS-10                         0:36        0.04278
  TS-10                         0:42        0.04280
  TS-10                         0:48        0.04283
  TS-10                         0:54        0.04285
  TS-10                         1:00        0.04288
  TS-10                         1:06        0.04290
  TS-10                         1:12        0.04292
  TS-10                         1:18        0.04295
```

TS-10	1:24	0.04297
TS-10	1:30	0.04300
TS-10	1:36	0.04302
TS-10	1:42	0.04305
TS-10	1:48	0.04307
TS-10	1:54	0.04310
TS-10	2:00	0.04312
TS-10	2:06	0.04366
TS-10	2:12	0.04437
TS-10	2:18	0.04508
TS-10	2:24	0.04579
TS-10	2:30	0.04650
TS-10	2:36	0.04721
TS-10	2:42	0.04792
TS-10	2:48	0.04863
TS-10	2:54	0.04934
TS-10	3:00	0.05005
TS-10	3:06	0.05076
TS-10	3:12	0.05147
TS-10	3:18	0.05219
TS-10	3:24	0.05290
TS-10	3:30	0.05361
TS-10	3:36	0.05432
TS-10	3:42	0.05503
TS-10	3:48	0.05574
TS-10	3:54	0.05645
TS-10	4:00	0.05716
TS-10	4:06	0.05753
TS-10	4:12	0.05780
TS-10	4:18	0.05807
TS-10	4:24	0.05833
TS-10	4:30	0.05860
TS-10	4:36	0.05887
TS-10	4:42	0.05914
TS-10	4:48	0.05941
TS-10	4:54	0.05968
TS-10	5:00	0.05995
TS-10	5:06	0.06022
TS-10	5:12	0.06049
TS-10	5:18	0.06076
TS-10	5:24	0.06103
TS-10	5:30	0.06130
TS-10	5:36	0.06157
TS-10	5:42	0.06184
TS-10	5:48	0.06211
TS-10	5:54	0.06238
TS-10	6:00	0.06265
TS-10	6:06	0.06470
TS-10	6:12	0.06735
TS-10	6:18	0.07000
TS-10	6:24	0.07264
TS-10	6:30	0.07529
TS-10	6:36	0.07793
TS-10	6:42	0.08058
TS-10	6:48	0.08323
TS-10	6:54	0.08587
TS-10	7:00	0.08852
TS-10	7:06	0.08977
TS-10	7:12	0.09055
TS-10	7:18	0.09134
TS-10	7:24	0.09212
TS-10	7:30	0.09290
TS-10	7:36	0.09369
TS-10	7:42	0.09447
TS-10	7:48	0.09526
TS-10	7:54	0.09604
TS-10	8:00	0.09682

TS-10	8:06	0.10466
TS-10	8:12	0.11486
TS-10	8:18	0.12505
TS-10	8:24	0.13524
TS-10	8:30	0.14543
TS-10	8:36	0.15504
TS-10	8:42	0.16444
TS-10	8:48	0.17385
TS-10	8:54	0.18326
TS-10	9:00	0.19267
TS-10	9:06	0.20854
TS-10	9:12	0.22658
TS-10	9:18	0.24461
TS-10	9:24	0.26264
TS-10	9:30	0.28067
TS-10	9:36	0.46099
TS-10	9:42	0.69541
TS-10	9:48	1.26631
TS-10	9:54	1.90360
TS-10	10:00	0.92409
TS-10	10:06	0.41038
TS-10	10:12	0.36627
TS-10	10:18	0.32218
TS-10	10:24	0.27808
TS-10	10:30	0.23398
TS-10	10:36	0.21487
TS-10	10:42	0.20409
TS-10	10:48	0.19331
TS-10	10:54	0.18253
TS-10	11:00	0.17174
TS-10	11:06	0.16611
TS-10	11:12	0.16219
TS-10	11:18	0.15827
TS-10	11:24	0.15435
TS-10	11:30	0.15043
TS-10	11:36	0.14651
TS-10	11:42	0.14259
TS-10	11:48	0.13867
TS-10	11:54	0.13475
TS-10	12:00	0.13083
TS-10	12:06	0.12801
TS-10	12:12	0.12556
TS-10	12:18	0.12311
TS-10	12:24	0.12066
TS-10	12:30	0.11821
TS-10	12:36	0.11576
TS-10	12:42	0.11331
TS-10	12:48	0.11086
TS-10	12:54	0.10841
TS-10	13:00	0.10596
TS-10	13:06	0.10351
TS-10	13:12	0.10106
TS-10	13:18	0.09861
TS-10	13:24	0.09616
TS-10	13:30	0.09371
TS-10	13:36	0.09126
TS-10	13:42	0.08881
TS-10	13:48	0.08636
TS-10	13:54	0.08391
TS-10	14:00	0.08146
TS-10	14:06	0.08048
TS-10	14:12	0.07999
TS-10	14:18	0.07950
TS-10	14:24	0.07901
TS-10	14:30	0.07852
TS-10	14:36	0.07803
TS-10	14:42	0.07754

TS-10	14:48	0.07705
TS-10	14:54	0.07656
TS-10	15:00	0.07607
TS-10	15:06	0.07558
TS-10	15:12	0.07509
TS-10	15:18	0.07460
TS-10	15:24	0.07411
TS-10	15:30	0.07362
TS-10	15:36	0.07313
TS-10	15:42	0.07264
TS-10	15:48	0.07215
TS-10	15:54	0.07166
TS-10	16:00	0.07117
TS-10	16:06	0.07068
TS-10	16:12	0.07019
TS-10	16:18	0.06970
TS-10	16:24	0.06921
TS-10	16:30	0.06872
TS-10	16:36	0.06823
TS-10	16:42	0.06774
TS-10	16:48	0.06725
TS-10	16:54	0.06676
TS-10	17:00	0.06627
TS-10	17:06	0.06578
TS-10	17:12	0.06529
TS-10	17:18	0.06480
TS-10	17:24	0.06431
TS-10	17:30	0.06382
TS-10	17:36	0.06333
TS-10	17:42	0.06284
TS-10	17:48	0.06235
TS-10	17:54	0.06186
TS-10	18:00	0.06137
TS-10	18:06	0.06088
TS-10	18:12	0.06039
TS-10	18:18	0.05990
TS-10	18:24	0.05941
TS-10	18:30	0.05892
TS-10	18:36	0.05843
TS-10	18:42	0.05794
TS-10	18:48	0.05745
TS-10	18:54	0.05696
TS-10	19:00	0.05647
TS-10	19:06	0.05598
TS-10	19:12	0.05549
TS-10	19:18	0.05500
TS-10	19:24	0.05451
TS-10	19:30	0.05402
TS-10	19:36	0.05353
TS-10	19:42	0.05304
TS-10	19:48	0.05255
TS-10	19:54	0.05206
TS-10	20:00	0.05157
TS-10	20:06	0.05108
TS-10	20:12	0.05059
TS-10	20:18	0.05010
TS-10	20:24	0.04961
TS-10	20:30	0.04912
TS-10	20:36	0.04863
TS-10	20:42	0.04814
TS-10	20:48	0.04765
TS-10	20:54	0.04716
TS-10	21:00	0.04667
TS-10	21:06	0.04618
TS-10	21:12	0.04569
TS-10	21:18	0.04520
TS-10	21:24	0.04471

```
  TS-10                         21:30      0.04422
  TS-10                         21:36      0.04373
  TS-10                         21:42      0.04324
  TS-10                         21:48      0.04275
  TS-10                         21:54      0.04226
  TS-10                         22:00      0.04177
  TS-10                         22:06      0.04128
  TS-10                         22:12      0.04079
  TS-10                         22:18      0.04030
  TS-10                         22:24      0.03981
  TS-10                         22:30      0.03932
  TS-10                         22:36      0.03883
  TS-10                         22:42      0.03834
  TS-10                         22:48      0.03785
  TS-10                         22:54      0.03736
  TS-10                         23:00      0.03687
  TS-10                         23:06      0.03638
  TS-10                         23:12      0.03589
  TS-10                         23:18      0.03540
  TS-10                         23:24      0.03491
  TS-10                         23:30      0.03442
  TS-10                         23:36      0.03393
  TS-10                         23:42      0.03344
  TS-10                         23:48      0.03295
  TS-10                         23:54      0.03246
  TS-10                         24:00      0.03197

[REPORT]
 INPUT     YES
 CONTROLS  YES

[OPTIONS]
 TEMPDIR   "C:\Users\mmaynard\AppData\Local\Temp\"
```

2 YEAR

Green Bee Concrete Modeling

Autodesk® Storm and Sanitary Analysis 2016 - Version 13.2.160 (Build 0)

****
Project Description
****
File Name ..... GreenBeeConcrete.SPF
Description ..... Green Bee Concrete Modeling

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. None
Starting Date SEP-26-2024 00:00:00
Ending Date SEP-28-2024 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 5
Number of nodes 10
Number of links 11

****
Raingage Summary
****

Gage ID	Data Source	Data Type	Recording Interval min
Rain Gage-01	TS-01	INTENSITY	6.00

****
Subbasin Summary
****

Subbasin ID	Total Area acres	Peak Rate Factor
DMA 2	0.82	0.00
DMA-1 PRE	5.39	484.00
DMA-1N	1.10	484.00
DMA-1S	0.90	0.00
DMA-1W	2.57	484.00

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Depth ft	Ponded Area ft²	External Inflow
INLET MHs	JUNCTION	1424.74	6.40	0.00	
Jun-03	JUNCTION	1432.55	2.00	0.00	
MWS-L	JUNCTION	1424.67	7.80	0.00	

OUTLET STRUCTURE	JUNCTION	1424.74	6.78	0.00
Wetwell	JUNCTION	1423.26	8.10	0.00
Out-02	OUTFALL	1432.50	0.50	0.00
Out-1	OUTFALL	1432.50	0.00	0.00

****
Inlet Summary
****

Inlet ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Invert Elevation	Rim Elevation	Area	Water Elevation	Clogging Factor
					ft	ft	ft²	ft	%
North	NEENAH FOUNDRY	R-3470-2	On Sag	2	1426.33	1429.83	10.00	1426.33	50.00
South	NEENAH FOUNDRY	R-3470-2	On Sag	2	1427.73	1430.23	10.00	1427.73	50.00
West	NEENAH FOUNDRY	R-3470-2	On Sag	2	1425.65	1429.15	914.00	1425.65	50.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
North	-	0.0200	0.0160	0.0620	2.00	2.00
South	-	0.0200	0.0160	0.0620	2.00	2.00
West	-	0.0200	0.0160	0.0200	10.00	0.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
Channel	Jun-03	Out-02	CHANNEL	6.7	0.7496	0.0320
Detention Field	INLET MHs	OUTLET STRUCTURE	CONDUIT	381.5	0.0003	0.0150
High Bypass	OUTLET STRUCTURE	Wetwell	CONDUIT	14.5	7.1724	0.0150
Link-01	West	INLET MHs	CONDUIT	260.0	0.3500	0.0150
Link-2	North	INLET MHs	CONDUIT	55.0	2.8909	0.0150
Link-3	South	INLET MHs	CONDUIT	77.0	3.8831	0.0150
Link-4	OUTLET STRUCTURE	MWS-L	CONDUIT	13.5	0.5185	0.0150
Pump-01	Wetwell	Jun-03	TYPE2 PUMP			
Orifice-01	MWS-L	Wetwell	ORIFICE			
Orifice-02	MWS-L	Wetwell	ORIFICE			
MWS Weir	MWS-L	Wetwell	WEIR			

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter	Width	No. of Barrels	Cross Sectional	Full Flow Design Flow

					Area	Radius	Capacity
		ft	ft		ft²	ft	cfs
Channel	RECT_OPEN	0.50	1.17	1	0.58	0.27	0.98
Detention Field	CIRCULAR	3.50	3.50	5	9.62	0.88	1.41
High Bypass	CIRCULAR	1.00	1.00	1	0.79	0.25	8.27
Link-01	CIRCULAR	1.50	1.50	1	1.77	0.38	5.39
Link-2	CIRCULAR	1.50	1.50	1	1.77	0.38	15.48
Link-3	CIRCULAR	1.50	1.50	1	1.77	0.38	17.94
Link-4	CIRCULAR	1.50	1.50	1	1.77	0.38	6.56

Runoff Quantity Continuity	Volume acre-ft	Depth inches
Total Precipitation	1.428	1.590
Surface Runoff	0.002	0.002
Continuity Error (%)	0.000	

Flow Routing Continuity	Volume acre-ft	Volume Mgallons
External Inflow	0.000	0.000
External Outflow	0.519	0.169
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.019	0.006
Continuity Error (%)	0.000	

Composite Curve Number Computations Report

Subbasin DMA 2

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.39	-	0.00
Composite Area & Weighted CN	5.39		76.00

Subbasin DMA-1 PRE

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.39	-	0.00
Composite Area & Weighted CN	5.39		76.00

Subbasin DMA-1N

	Area	Soil

Soil/Surface Description	(acres)	Group	CN
-	1.02	-	0.00
Composite Area & Weighted CN	1.02		76.00

Subbasin DMA-1S

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.56	-	0.00
Composite Area & Weighted CN	4.56		98.00

Subbasin DMA-1W

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.56	-	0.00
Composite Area & Weighted CN	4.56		98.00

****
SCS TR-55 Time of Concentration Computations Report
****

Sheet Flow Equation

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where:

Tc = Time of Concentration (hrs)
n = Manning's Roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

Subbasin DMA 2

User-Defined TOC override (minutes): 15.00

Subbasin DMA-1 PRE

User-Defined TOC override (minutes): 15.00

Subbasin DMA-1N

==========

Total TOC (minutes): 0.00

==========

Subbasin DMA-1S

User-Defined TOC override (minutes): 5.00

Subbasin DMA-1W

User-Defined TOC override (minutes): 5.00

****
Subbasin Runoff Summary
****

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days	Time of Concentration hh:mm:ss
DMA 2	1.60	0.23	0.04	76.000	0	00:15:00
DMA-1 PRE	1.60	0.23	0.27	76.000	0	00:15:00
DMA-1N	1.60	0.23	0.07	76.000	0	00:05:00
DMA-1S	1.60	1.38	1.02	98.000	0	00:05:00
DMA-1W	1.60	1.38	2.92	98.000	0	00:05:00

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	Time of Max Occurrence hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
INLET MHs	1.05	1.82	1426.56	0	19:03	0	0	0:00:00
Jun-03	0.09	0.43	1432.98	0	18:06	0	0	0:00:00
MWS-L	1.11	1.89	1426.56	0	19:03	0	0	0:00:00
OUTLET STRUCTURE	1.05	1.82	1426.56	0	19:03	0	0	0:00:00
Wetwell	0.87	1.41	1424.67	0	19:46	0	0	0:00:00
Out-02	0.08	0.40	1432.90	0	17:49	0	0	0:00:00
Out-1	0.00	0.00	1432.50	0	00:00	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	Time of Peak Inflow Occurrence hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	Time of Peak Flooding Occurrence hh:mm
INLET MHs	JUNCTION	0.00	3.87	0	10:00	0.00		
Jun-03	JUNCTION	0.00	0.81	0	03:09	0.00		
MWS-L	JUNCTION	0.00	0.14	0	18:57	0.00		
OUTLET STRUCTURE	JUNCTION	0.00	1.96	0	10:01	0.00		
Wetwell	JUNCTION	0.00	0.14	0	19:03	0.00		
Out-02	OUTFALL	0.04	0.75	0	10:10	0.00		
Out-1	OUTFALL	0.27	0.27	0	10:10	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days	Time of Maximum Depth Occurrence hh:mm
North	0.00	1429.83	0.00	0	19:02
South	0.00	1430.28	0.05	0	10:00
West	5.37	1429.26	0.11	0	19:06

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Intercepted by Inlet cfs	Peak Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes

North	0.07	0.07	-	-	-	0.000
South	1.01	1.01	-	-	-	0.000
West	2.91	2.91	-	-	-	0.000

****
Outfall Loading Summary
****

Outfall Node ID	Flow Frequency (%)	Average Flow cfs	Peak Inflow cfs
Out-02	88.82	0.12	0.75
Out-1	30.55	0.08	0.27
System	59.68	0.20	1.02

****
Link Flow Summary
****

Link ID	Element Type	Time of Peak Flow Occurrence days hh:mm	Maximum Velocity Attained ft/sec	Length Factor	Peak Flow during Analysis cfs	Design Flow Capacity cfs	Ratio of Maximum /Design Flow	Ratio of Maximum Depth	Total Time Surcharged minutes	Reported Condition
Channel	CHANNEL	0 17:49	1.49	1.00	0.72	0.98	0.73	0.83	0	Calculated
Detention Field	CONDUIT	0 10:01	0.16	1.00	1.96	7.06	0.28	0.52	0	Calculated
High Bypass	CONDUIT	0 00:00	0.00	1.00	0.00	8.27	0.00	0.00	0	Calculated
Link-01	CONDUIT	0 10:00	2.51	1.00	2.82	5.39	0.52	0.80	0	Calculated
Link-2	CONDUIT	0 10:05	0.11	1.00	0.07	15.48	0.00	0.58	0	Calculated
Link-3	CONDUIT	0 10:00	1.40	1.00	1.01	17.94	0.06	0.53	0	Calculated
Link-4	CONDUIT	0 18:57	1.04	1.00	0.14	6.56	0.02	1.00	1006	SURCHARGED
Pump-01	PUMP	0 03:09			0.81		1.00	359		
Orifice-01	ORIFICE	0 19:03			0.07					
Orifice-02	ORIFICE	0 19:03			0.08					
MWS Weir	WEIR	0 00:00			0.00			0.00		

****
Highest Flow Instability Indexes

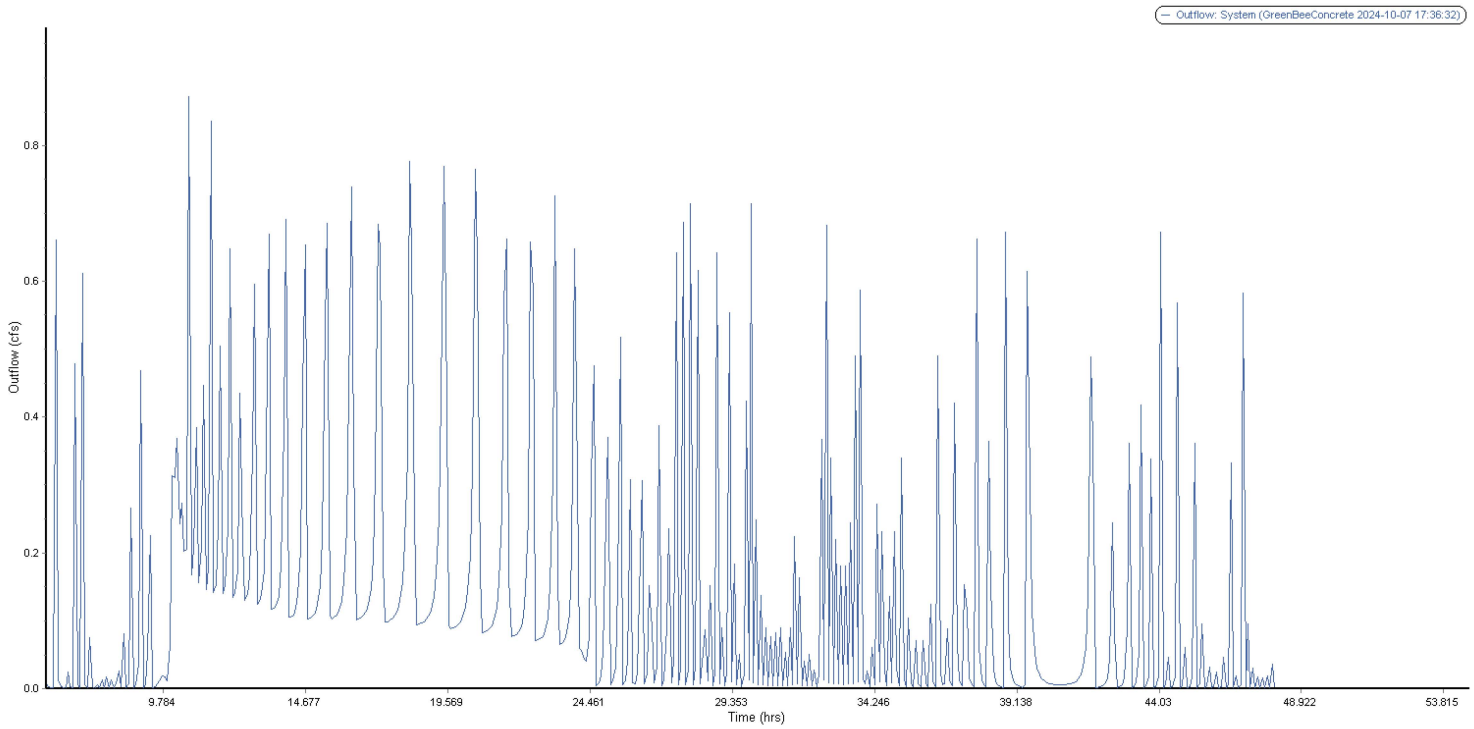
```
*******************************
All links are stable.



WARNING 004 : Minimum elevation drop used for Conduit Detention Field.
WARNING 130 : Inlet invert offset defined for Conduit Link-01 is negative. Assumed zero.
WARNING 130 : Inlet invert offset defined for Conduit Link-2 is negative. Assumed zero.
WARNING 130 : Inlet invert offset defined for Conduit Link-3 is negative. Assumed zero.

Analysis began on:  Mon Oct  7 17:43:07 2024
Analysis ended on:  Mon Oct  7 17:43:11 2024
Total elapsed time: 00:00:04
```

2 YEAR


Outflow: System (GreenBeeConcrete 2024-10-07 17:36:32)
Outflow (cfs)
0.0
0.2
0.4
0.6
0.8
9.784
14.677
19.569
24.461
29.353
34.246
39.138
44.03
48.922
53.815
Time (hrs)

100 Year

Green Bee Concrete Modeling

Autodesk® Storm and Sanitary Analysis 2016 - Version 13.2.160 (Build 0)

****
Project Description
****
File Name ..... GreenBeeConcrete.SPF
Description ..... Green Bee Concrete Modeling

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. None
Starting Date SEP-26-2024 00:00:00
Ending Date SEP-28-2024 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 5
Number of nodes 10
Number of links 11

****
Raingage Summary
****

Gage ID	Data Source	Data Type	Recording Interval min
Rain Gage-01	TS-02	INTENSITY	6.00

****
Subbasin Summary
****

Subbasin ID	Total Area acres	Peak Rate Factor
DMA 2	0.82	0.00
DMA-1 PRE	5.39	484.00
DMA-1N	1.10	484.00
DMA-1S	0.90	0.00
DMA-1W	2.57	484.00

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Depth ft	Ponded Area ft²	External Inflow
INLET MHs	JUNCTION	1424.74	6.40	0.00	
Jun-03	JUNCTION	1432.55	2.00	0.00	
MWS-L	JUNCTION	1424.67	7.80	0.00	

OUTLET STRUCTURE	JUNCTION	1424.74	6.78	0.00
Wetwell	JUNCTION	1423.26	8.10	0.00
Out-02	OUTFALL	1432.50	0.50	0.00
Out-1	OUTFALL	1432.50	0.00	0.00

****
Inlet Summary
****

Inlet ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Invert Elevation	Rim Elevation	Area	Water Elevation	Clogging Factor
					ft	ft	ft²	ft	%
North	NEENAH FOUNDRY	R-3470-2	On Sag	2	1426.33	1429.83	10.00	1426.33	50.00
South	NEENAH FOUNDRY	R-3470-2	On Sag	2	1427.73	1430.23	10.00	1427.73	50.00
West	NEENAH FOUNDRY	R-3470-2	On Sag	2	1425.65	1429.15	914.00	1425.65	50.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
North	-	0.0200	0.0160	0.0620	2.00	2.00
South	-	0.0200	0.0160	0.0620	2.00	2.00
West	-	0.0200	0.0160	0.0200	10.00	0.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
Channel	Jun-03	Out-02	CHANNEL	6.7	0.7496	0.0320
Detention Field	INLET MHs	OUTLET STRUCTURE	CONDUIT	381.5	0.0003	0.0150
High Bypass	OUTLET STRUCTURE	Wetwell	CONDUIT	14.5	7.1724	0.0150
Link-01	West	INLET MHs	CONDUIT	260.0	0.3500	0.0150
Link-2	North	INLET MHs	CONDUIT	55.0	2.8909	0.0150
Link-3	South	INLET MHs	CONDUIT	77.0	3.8831	0.0150
Link-4	OUTLET STRUCTURE	MWS-L	CONDUIT	13.5	0.5185	0.0150
Pump-01	Wetwell	Jun-03	TYPE2 PUMP			
Orifice-01	MWS-L	Wetwell	ORIFICE			
Orifice-02	MWS-L	Wetwell	ORIFICE			
MWS Weir	MWS-L	Wetwell	WEIR			

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter	Width	No. of Barrels	Cross Sectional	Full Flow Design Flow

					Area	Radius	Capacity
		ft	ft		ft²	ft	cfs
Channel	RECT_OPEN	0.50	1.17	1	0.58	0.27	0.98
Detention Field	CIRCULAR	3.50	3.50	5	9.62	0.88	1.41
High Bypass	CIRCULAR	1.00	1.00	1	0.79	0.25	8.27
Link-01	CIRCULAR	1.50	1.50	1	1.77	0.38	5.39
Link-2	CIRCULAR	1.50	1.50	1	1.77	0.38	15.48
Link-3	CIRCULAR	1.50	1.50	1	1.77	0.38	17.94
Link-4	CIRCULAR	1.50	1.50	1	1.77	0.38	6.56

**********	Volume	Depth
Runoff Quantity Continuity	acre-ft	inches
**********	---	---
Total Precipitation	3.570	3.976
Surface Runoff	0.007	0.008
Continuity Error (%)	0.000	

**********	Volume	Volume
Flow Routing Continuity	acre-ft	Mgallons
**********	---	---
External Inflow	0.000	0.000
External Outflow	3.517	1.146
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.438	0.143
Continuity Error (%)	-0.764	

Composite Curve Number Computations Report

Subbasin DMA 2

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.39	-	0.00
Composite Area & Weighted CN	5.39		76.00

Subbasin DMA-1 PRE

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.39	-	0.00
Composite Area & Weighted CN	5.39		76.00

Subbasin DMA-1N

Soil/Surface Description	Area	Soil

Soil/Surface Description	(acres)	Group	CN
-	1.02	-	0.00
Composite Area & Weighted CN	1.02		76.00

Subbasin DMA-1S

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.56	-	0.00
Composite Area & Weighted CN	4.56		98.00

Subbasin DMA-1W

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.56	-	0.00
Composite Area & Weighted CN	4.56		98.00

****
SCS TR-55 Time of Concentration Computations Report
****

Sheet Flow Equation

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where:

Tc = Time of Concentration (hrs)
n = Manning's Roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

Subbasin DMA 2

User-Defined TOC override (minutes): 15.00

Subbasin DMA-1 PRE

User-Defined TOC override (minutes): 15.00

Subbasin DMA-1N

==========

Total TOC (minutes): 0.00

==========

Subbasin DMA-1S

User-Defined TOC override (minutes): 5.00

Subbasin DMA-1W

User-Defined TOC override (minutes): 5.00

****
Subbasin Runoff Summary
****

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days	Time of Concentration hh:mm:ss
DMA 2	4.00	1.74	0.84	76.000	0	00:15:00
DMA-1 PRE	4.00	1.74	5.52	76.000	0	00:15:00
DMA-1N	4.00	1.74	1.53	76.000	0	00:05:00
DMA-1S	4.00	3.77	2.66	98.000	0	00:05:00
DMA-1W	4.00	3.77	7.65	98.000	0	00:05:00

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	Time of Max Occurrence hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
INLET MHs	3.88	5.29	1430.03	0	10:04	0	0	0:00:00
Jun-03	0.39	0.47	1433.02	0	09:55	0	0	0:00:00
MWS-L	4.14	5.99	1430.66	0	10:04	0	0	0:00:00
OUTLET STRUCTURE	3.89	5.40	1430.14	0	10:04	0	0	0:00:00
Wetwell	4.74	6.55	1429.81	0	10:04	0	0	0:00:00
Out-02	0.36	0.44	1432.94	0	09:57	0	0	0:00:00
Out-1	0.00	0.00	1432.50	0	00:00	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	Time of Peak Inflow Occurrence hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	Time of Peak Flooding Occurrence hh:mm
INLET MHs	JUNCTION	0.00	10.51	0	09:59	0.00		
Jun-03	JUNCTION	0.00	0.81	0	01:38	0.00		
MWS-L	JUNCTION	0.00	20.74	0	10:04	0.00		
OUTLET STRUCTURE	JUNCTION	0.00	6.34	0	09:59	0.00		
Wetwell	JUNCTION	0.00	2.61	0	09:59	0.00		
Out-02	OUTFALL	0.83	1.64	0	10:05	0.00		
Out-1	OUTFALL	5.48	5.48	0	10:05	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days	Time of Maximum Depth Occurrence hh:mm
North	0.00	1429.90	0.07	0	10:04
South	0.00	1430.33	0.10	0	10:04
West	10.25	1429.35	0.20	0	09:58

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Intercepted by Inlet cfs	Peak Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding Time Flooded during minutes	Total Flooding Time Flooded during acre-in

North	1.53	1.53	-	-	-	0.014
South	2.65	2.65	-	-	-	0.021
West	7.61	7.61	-	-	-	123.776

****
Outfall Loading Summary
****

Outfall Node ID	Flow Frequency (%)	Average Flow cfs	Peak Inflow cfs
Out-02	95.18	0.72	1.64
Out-1	36.23	0.54	5.48
System	65.71	1.27	7.13

****
Link Flow Summary
****

Link ID	Element Type	Time of Peak Flow Occurrence days hh:mm	Maximum Velocity Attained ft/sec	Length Factor	Peak Flow during Analysis cfs	Design Flow Capacity cfs	Ratio of Maximum /Design Flow	Ratio of Maximum Depth	Total Time Surcharged minutes	Reported Condition
Channel	CHANNEL	0 09:57	1.53	1.00	0.81	0.98	0.83	0.91	0	Calculated
Detention Field	CONDUIT	0 09:59	0.18	1.00	6.19	7.06	0.88	1.00	2276	SURCHARGED
High Bypass	CONDUIT	0 10:04	3.86	1.00	1.60	8.27	0.19	1.00	2277	SURCHARGED
Link-01	CONDUIT	0 09:58	3.82	1.00	6.76	5.39	1.25	1.00	2292	SURCHARGED
Link-2	CONDUIT	0 10:00	0.84	1.00	1.46	15.48	0.09	1.00	2279	SURCHARGED
Link-3	CONDUIT	0 10:04	3.34	1.00	5.84	17.94	0.33	1.00	2276	SURCHARGED
Link-4	CONDUIT	1 00:15	1.88	1.00	3.33	6.56	0.51	1.00	2332	SURCHARGED
Pump-01	PUMP	0 01:38			0.81		1.00	2343		
Orifice-01	ORIFICE	0 09:53			0.07					
Orifice-02	ORIFICE	0 09:53			0.09					
MWS Weir	WEIR	0 10:04			19.02			1.00		

****
Highest Flow Instability Indexes

```
*******************************
Link Link-4 (75)



WARNING 004 : Minimum elevation drop used for Conduit Detention Field.
WARNING 130 : Inlet invert offset defined for Conduit Link-01 is negative. Assumed zero.
WARNING 130 : Inlet invert offset defined for Conduit Link-2 is negative. Assumed zero.
WARNING 130 : Inlet invert offset defined for Conduit Link-3 is negative. Assumed zero.

Analysis began on:  Mon Oct  7 17:44:08 2024
Analysis ended on:  Mon Oct  7 17:44:14 2024
Total elapsed time: 00:00:06
```

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

STORMWATER CONTROL OPERATIONS & MAINTENANCE PLAN

Green Bee Concrete
Lot 738 & 739, Romola Farms NO. 6-A
Perris, Riverside County, California

Green Bee Concrete
18890 Seaton Avenue
Perris, CA 92570
(953) 795-4260

prepared by:

JM Civil Engineering
38 Executive Park, Suite 310
Irvine, CA 92614
(360) 216-1461
Michelle Maynard, P.E.

Original Date Prepared: 7 October 2024

TABLE OF CONTENTS

I. Inspection and Maintenance Log 1

II. Updates, Revisions and Errata 2

III. Introduction 3

IV. Responsibility for Maintenance 4

IV.A. General 4

Ownership and Responsibility 4

IV.B. Staff Training Program 7

IV.C. Records 7

IV.D. Safety 7

IV.E. Drainage Areas 8

IV.F. Treatment Facilities 9

V. BMP Design Documentation 10

V.A. Treatment Facilities "As-Built" 10

V.B. Proprietary Facilities Information 10

V.C. Concerns and Troubleshooting ..... Error! Bookmark not defined.

VI. Maintenance Requirements 11

Table

Table 1: Drainage Management Areas

Attachment

Contech MWS Linear Maintenance Guide

Contech CMP Detention Inspection and Maintenance Manual

I. INSPECTION AND MAINTENANCE LOG

Stormwater BMP Inspection and Maintenance Log

Facility Name	
Address	
Begin Date	End Date

Date	BMP ID#	BMP Description	Inspected By:	Cause for Inspection	Exceptions Noted	Comments and Actions Taken
	BMP 1	Contech MWS Linear				
	BMP 1	Contech Aluminized CMP Detention				

Instructions: Record all inspections and maintenance for all treatment BMPs on this form. Use additional log sheets and/or attach extended comments or documentation as necessary. Submit a copy of the completed log with the annual independent inspectors' report to the municipality, and start a new log at that time.

- BMP ID# — Always use ID# from the Operation and Maintenance Manual.
- Inspected by — Note all inspections and maintenance on this form, including the required independent annual inspection.
- Cause for inspection — Note if the inspection is routine, pre-rainy-season, post-storm, annual, or in response to a noted problem or complaint.
- Exceptions noted — Note any condition that requires correction or indicates a need for maintenance.
- Comments and actions taken — Describe any maintenance done and need for follow-up.

II. UPDATES, REVISIONS AND ERRATA

Date	Num.	Updates, Revisions, or Errata Title	Description/Purpose	By (full name):

III. INTRODUCTION

The plan addresses operation and maintenance of facilities constructed as part of the following development project, Green Bee Concrete on Lots 738 & 739, Romola Farms No. 6-A, Perris, California. The project will be constructed on a 5.494-Acre parcel and will consist of an office building, a storage facility, a mechanics shop, and a lumber yard with covered shade structures. The project consists of two drainage management areas, DMA-1 and DMA-2. DMA-1 is subdivided into three areas based on drain inlets and will receive stormwater treatment and detention before discharge. DMA-2 is self-treating.

DMA 1 is treated by a proprietary media filtration device (BMP-1). Stormwater enters catch basins that are piped to the Contech Aluminized CMP detention field and then to treatment, via the Contech MWS-Linear-8x20-V. Once treated, discharged water is connected to a Santa Fe Water Systems Stormwater Discharge Pump Station. From here, water discharges at ground level into a rectangular, cobble filled channel before running though an under sidewalk drain into the gutter.

DMAs and treatment facilities locations are depicted on the attached Water Quality Management Plan.

IV. RESPONSIBILITY FOR MAINTENANCE

IV.A. General

This Stormwater Facilities Operation and Maintenance Plan (O&M Plan) is for treatment facilities constructed as part of the development project referenced in Section 3. Construction of these facilities was required by Provision XII in the Municipal Regional Stormwater Permit issued by the California Regional Water Quality Control Board for the Santa Ana Region. Provision XII.K.5 also requires the City to verify ongoing operation and maintenance of stormwater treatment facilities.

OWNERSHIP AND RESPONSIBILITY

The property owner accepts responsibility for interim operation and maintenance of stormwater treatment facilities until such time as this responsibility is formally transferred to a subsequent owner. As such, the owner is responsible for maintaining the stormwater treatment facilities, including rain gutters, downspouts, inlets, outlets, pipelines, the Contech Modular Wetland System Linear™ (MWS Linear – see certification below) and the Contech Aluminized CMP Detention Field.

OWNER'S CERTIFICATION

Owner

(APN: 329-240-031)

25775 Sherman Road

Perris, CA 92570

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this O&M Plan and will ensure that this O&M Plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Water Pollution Prevention Water Quality Management Plan for the Santa Ana Region of Riverside County and the intent of the Municipal Regional Stormwater NPDES Permit for the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the O&M Plan. An appropriate number of approved-signed copies of this document shall be available on the subject site in perpetuity.

By: _____

*Name:*_____

*Title:*_____

*Company:*_____

*Address:*_____

*Phone #:*_____

Date: _____

Designation of Individuals Responsible for Stormwater Treatment BMP Operation and Maintenance	
Date Completed	
Facility Name	
Facility Address	
Designated Contact for Operation and Maintenance	
Name:	Title or Position:
Telephone:	Alternate Telephone:
Email:	
Off-Hours or Emergency Contact	
Name:	Title or Position:
Telephone:	Alternate Telephone:
Email:	
Corporate Officer (authorized to execute contracts with the City, Town, or County)	
Name:	Title or Position:
Address:	
Telephone:	Alternate Telephone:
Email:	
Individual Responsible for Carrying out Operations and Maintenance	
Name:	Title or Position:
Address:	
Telephone:	Alternate Telephone:
Email:	

FUNDING

The facility operation and maintenance will be funded on an ongoing basis by the Owner through a designated fund. The operations and maintenance for Contech's MWS Linear is expected to be $1,600 when replacing filter media and about $450 for inspections. Contech's Aluminized CMP Detention Field maintenance is expected to be around $1,000 on these systems when performed.

IV.B. Staff Training Program

Following completion of construction, staff should be informed about the location and maintenance needs of the drain inlets, the Contech MWS-Linear and the Contech Aluminized CMP Detention field.

IV.C. Records

Records shall be kept on site indicating when maintenance has been performed on each treatment facility for at least 5 years. BMP maintenance records shall be made available to County officials upon request.

IV.D. Safety

When accessing the stormwater treatment areas for maintenance, make yourself visible by wearing a safety vest. Use safety cones to cordon off an area when accessing due to the proximity to the drive isles. Wear thick gloves to protect from potential pollutants, broken glass, and other sharp objects.

V. SUMMARY OF DRAINAGE AREAS AND STORMWATER FACILITIES

V.A. Drainage Areas

The location of DMAs and their treatment facilities are shown on the attached Stormwater Control Drawing. The descriptions and designations of the DMAs are listed below:

DMA-1W, totaling 111,904 square feet, drains the building, truck parking, lumber yard, and storage sheds. DMA-1W drains to BMP 1 the proprietary device – Contech MWS Linear™.

DMA-1N, totaling 47,900 square feet, drains the northern parking field, the driveway, a small portion of the building sidewalk, and main drive isle entrance. DMA-1N drains to BMP 1 the proprietary device – Contech MWS Linear™.

DMA-1S, totaling 39,075 square feet, drains the southern parking lots and most of the building sidewalk. DMA-1S drains to BMP 1 the proprietary device – Contech MWS Linear™.

DMA-2, totaling 35,592 square feet, drains landscape areas, as a Self-Treating DMA.

Table 1: Drainage Management Areas

DMA Name	Surface Type	Area (square feet)	Runoff Treatment Device Name
DMA-1W	ROOFS AND PAVING	111,904	BMP 1
DMA-1N	DRIVE ISLE, PARKING, AND SIDEWALK	47,900	BMP 1
DMA-1S	PAVING AND SIDEWALK	39,075	BMP 1
DMA 2	LANDSCAPE	35,592	Self-Treating

V.B. Treatment Facilities

The Contech MWS Linear™ is a proprietary media filtration device designated as BMP 1 and is an 8'x20' with a footprint of 9'x21'.

Contech's 42" Aluminized CMP Detention Field will receive stormwater first and will discharge to Contech's MWS Linear's for treatment, before being pumped offsite. Runoff from DMA-1W, DMA-1N, and DMA-1S sheet flow into their respective catch basins and then are piped directly to the Detention Field and then to BMP 1.

VI. BMP DESIGN DOCUMENTATION

VI.A. Treatment Facilities "As-Built"

Final Construction Drawings will be attached to this report. Drawings will detail the elevations and details of all the stormwater treatment facilities. Any update to design information that was not included in the Water Quality Management Plan will be included here including final specifications for construction of the facilities, including soil mix used, piping materials, compaction lifts and bedding.

Changes to design drawings will be recorded in this section, specifically any field changes regarding:

- Location or layouts of piping
- Depths and layering of soil, sand, or gravel
- Placement of filter fabric
- Changes or substitutions in soil or other materials
- Natural soils encountered (e.g. sand or clay lenses)

VI.B. Proprietary Facilities Information

The Contech MWS Linear™ is a pre-engineered biofiltration system composed of a pretreatment chamber containing filtration cartridges, a horizontal flow biofiltration chamber and an orifice control structure. The concrete structure has pedestrian rated vaults and maintenance can be performed without entry.

VII. MAINTENANCE REQUIREMENTS

BIOCLEAN ENVIRONMENTAL, INC. MWS LINEAR

MWS Linear™ is a biofilter using horizontal flow to capture and retain sediment, TSS, heavy metals, nutrients, hydrocarbons, bacteria, and trash and debris. The treatment system consists of three chambers: a pre-treatment chamber, a biofiltration chamber, and a discharge chamber. Stormwater runoff enters the inlet chamber through piping, gross solids are settled out and floating trash and debris are trapped in the pre-treatment chamber. From here, water gravity flows into a filter cartridge. After it goes through the filter cartridge media, water exits the pretreatment chamber and enters the biofiltration chamber. After it has flowed through the biofiltration, it is collected and conveyed into the discharge chamber, which has a flow orifice plate. In the event of large storms, this side-by-side orientation has an internal bypass weir.

Please see attached Contech Maintenance Guidelines for Modular Wetlands Systems - Linear™ with summary, procedures, inspection reports and maintenance reports.

CONTECH CMP DETENTION

The Contech® CMP system consists of 5 rows of 42" aluminized corrugated metal pipe. It should be inspected annually at a minimum.

Please see the attached Contech CMP Detention Inspection and Maintenance Guide for procedure details.

Inspection and Maintenance Schedule

Schedule	Observation	Maintenance Activity
Twice a year (for inspections and light maintenance) | every one to two years for maintenance	MWS Linear: Inspect structures for accumulation of debris and sediment. Inspect cartridge filter media and drain down filter media for a color change	Remove any debris and sediment. Trim vegetation. Replace Cartridge Filter Media. Replace drain down Filter Media.
Once every 6 months for the first year and then once a year for subsequent years (for inspections)	Contech CMP Detention: Inspect inlet structures with a camera. If sediment or trash is clogging the discharge, it is time to maintain the system.	Access is provided via a manhole located on the end of a row. Maintain with a JetVac process.
Before the start of each rainy season and after each heavy rain event.	Drainage System Structures: Inspect drainage structures for accumulation of debris and sediment. Inspect drain inlets for obstructions to inlet and out piping.	Remove any debris and sediment. Clean inlet as necessary. Remove any obstructions to inlet and outlet piping.
Before the start of each rainy season.	Building Roof Area: Inspect roof gutters and downspouts for accumulation of debris or obstructions.	Remove any debris and obstructions and clean gutters as necessary.

Contents of Inspector's Report

I. General

A. Date and time of site visit
B. Reason for inspection (e.g., routine/annual, follow-up, by municipality request, or response to complaint)
C. Weather/rainfall
D. Personnel participating
E. Ability to obtain access to the site

II. Review of Stormwater Control Operation and Maintenance Plan

A. Ability to obtain and review on-site copy of plan
B. Date of last update to plan
C. Sections out-of-date and updates needed
    (1) Contact information for site personnel
    (2) Information on BMPs
    (3) Records of previous inspections
D. Review of maintenance logs
    (1) Comparison to maintenance schedule. Note exceptions.

III. Results of Site Inspection

A. Overall condition of site and any exceptional circumstances (e.g., construction in progress, flooding)
B. For each BMP listed in the Stormwater Control Operation and Maintenance Plan
    (1) Items inspected
    (2) Exceptions noted
    (3) Corrective actions needed
        (a) Exceptions not affecting BMP performance (correct and re-inspect in one year)
        (b) Exceptions affecting BMP performance (correct and re-inspect immediately)

IV. Compliance Status

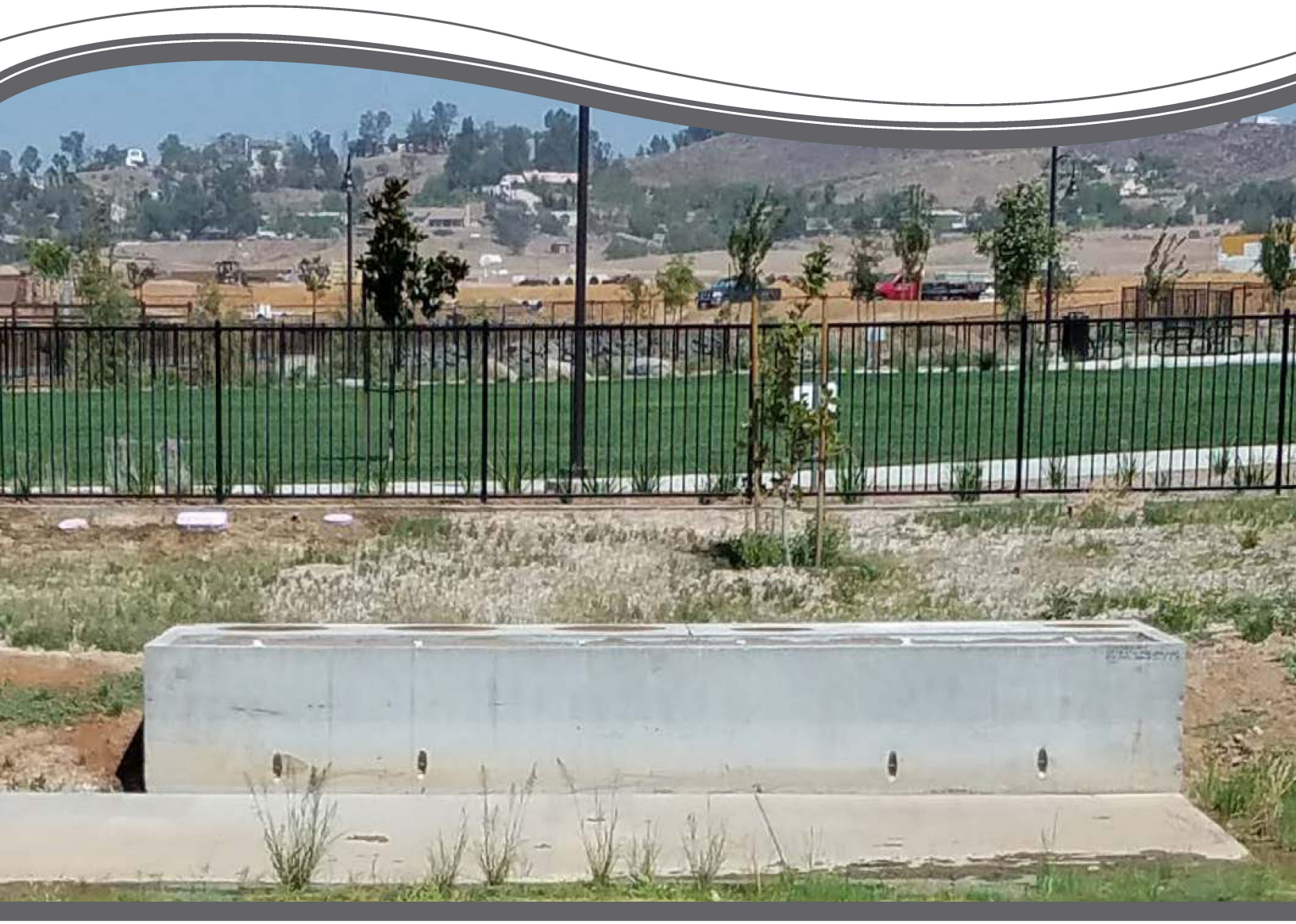
A. In compliance—no corrective actions required, or
B. In compliance—implement corrective actions and re-inspect in one year, or
C. Not in compliance—implement corrective actions and re-inspect

V. Summary and Recommendations

A. Note any required follow-up and schedule re-inspection if necessary

CONTECH®
ENGINEERED SOLUTIONS

Modular Wetlands® Linear Operatons & Maintenance Manual



MODULAR WETLANDS®

MODULAR WETLANDS LINEAR
OPERATION & MAINTENANCE MANUAL

TABLE OF CONTENTS

Overview 3
Safety Notice & Personal Safety Equipment 4
Modular Wetlands Linear Components List 5
Inspection Summary & Equipment List 6
Inspection & Maintenance Notes 7
Inspection Process 7
Maintenance Indicators 9
Maintenance Summary & Equipment List 9
Maintenance Instructions 11
Replacing Biofiltration Media if Required 14
Replacing Drain Down Filter Media (Only on Older California Models) 16
Notes 17
Inspection Report 18
Cleaning & Maintenance Report 19

OVERVIEW

This operation and maintenance (O&M) manual is for the Modular Wetlands Linear Biofilter (MWL). Please read the instructions and equipment lists closely prior to starting. It is important to follow all necessary safety procedures associated with state and local regulations. Please contact Contech for more information on pre-authorized third-party service providers who can provide inspection and maintenance services in your area. For a list of service providers in your area, please visit www.conteches.com/maintenance.





WARNING

Confined space entry may be required. Contractor to obtain all equipment and training to meet applicable local and OSHA regulations regarding confined space entry. It is the Contractor's or entry personnel's responsibility to always proceed safely.

SAFETY NOTICE & PERSONAL SAFETY EQUIPMENT

Job site safety is a topic and a practice addressed comprehensively by others. The inclusions here are merely reminders to whole areas of Safety Practice that are the responsibility of the Owner(s), Manager(s), and Service Provider(s). OSHA and Canadian OSH, Federal, State/Provincial, and Local Jurisdiction Safety Standards apply on any given site or project. The knowledge and applicability of those responsibilities is the Service Provider's responsibility and outside the scope of Contech Engineered Solutions.



Safety Boots



Gloves



Hard Hat



Eye Protection

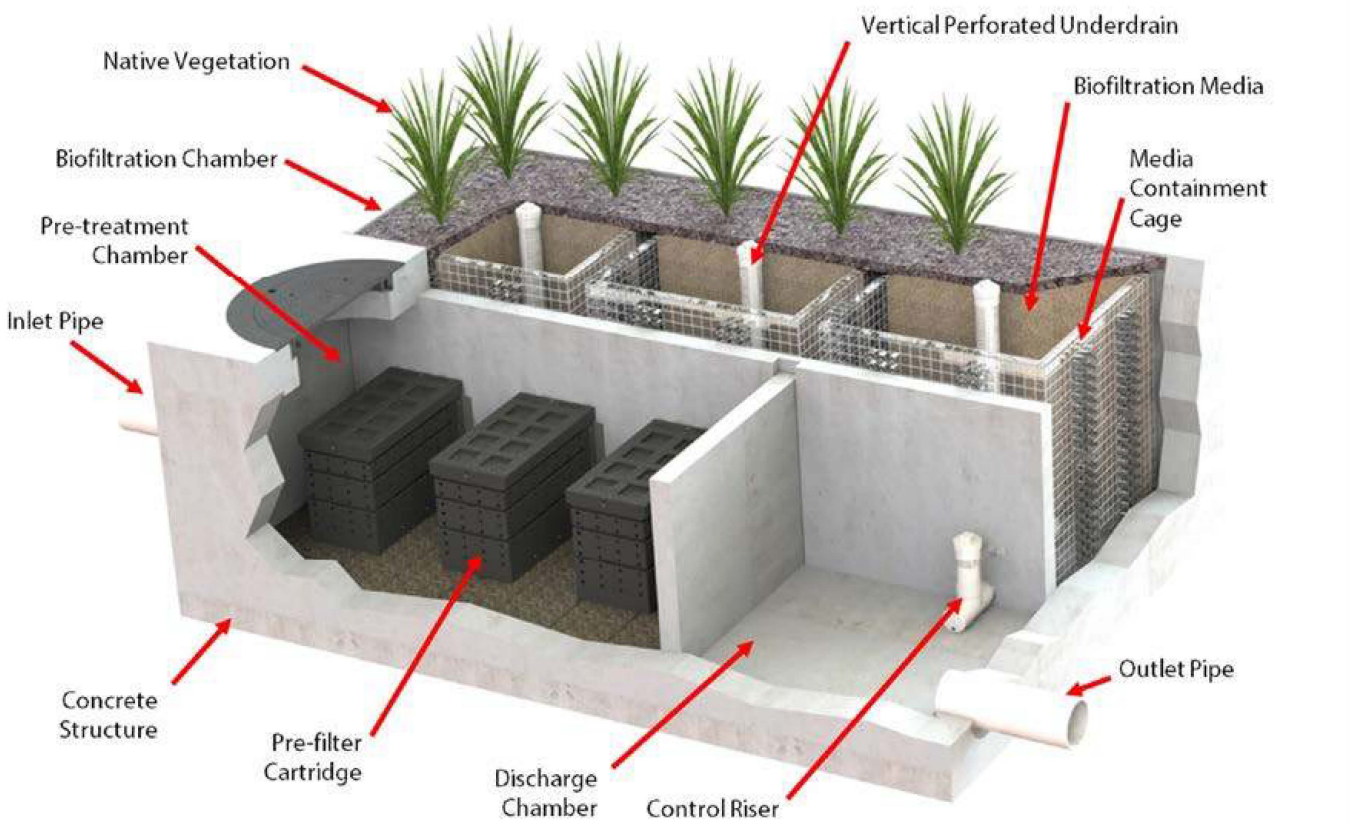


Maintenance and Protection of Traffic Plan

MODULAR WETLANDS LINEAR COMPONENTS LIST

The MWL system comes in multiple sizes and configurations, including side by side or end to end layouts, both as open planters or underground systems. See shop drawings (plans) for project specific details.

The standard MWL system is comprised of the following components:



INSPECTION SUMMARY & EQUIPMENT LIST

Stormwater regulations require BMPs be inspected and maintained to ensure they are operating as designed to allow for effective pollutant removal and provide protection to receiving water bodies. It is recommended that inspections be performed multiple times during the first year to assess the site-specific loading conditions. The first year of inspections can be used to set inspection and maintenance intervals for subsequent years to ensure appropriate maintenance is provided.

- Inspect pre-treatment, biofiltration, and discharge chambers an average of once every six to twelve months. Varies based on site specific and local conditions.
- Average inspection time is approximately 15 minutes. Always ensure appropriate safety protocol and procedures are followed.

The following is a list of equipment required to allow for simple and effective inspection of the MWL:



Modular Wetlands Linear Inspection Form



Flashlight



Tape Measure



Access Cover Hook



Ratchet
& 7/16" Socket
(if required for older pre-filter cartridges that have two bolts holding the lids on)

INSPECTION & MAINTENANCE NOTES

1. Following maintenance and/or inspection, it is recommended that the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.
2. The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.
3. Transport all debris, trash, organics, and sediments to approved facility for disposal in accordance with local and state requirements.
4. Entry into chambers may require confined space training based on state and local regulations.
5. No fertilizer shall be used in the biofiltration chamber.
6. Irrigation should be provided as recommended by manufacturer and/or landscape architect. Amount of irrigation required is dependent on plant species. Some plants may not require irrigation after initial establishment.

INSPECTION PROCESS

1. Prepare the inspection form by writing in the necessary information including project name, location, date & time, unit number and other information (see inspection form).
2. Observe the inside of the system through the access covers. If minimal light is available and vision into the unit is impaired, utilize a flashlight to see inside the system and all chambers.
3. Look for any out of the ordinary obstructions in the inflow pipe, pre-treatment chamber, biofiltration chamber, discharge chamber or outflow pipe. Write down any observations on the inspection form.
4. Through observation and/or digital photographs, estimate the amount of trash, debris accumulated in the pre-treatment chamber. Utilizing a tape measure or measuring stick, estimate the amount of sediment in this chamber. Record this depth on the inspection form.
5. Through visual observation, inspect the condition of the pre-filter cartridges. Look for excessive build-up of sediment on the cartridges, any build-up on the tops of the cartridges, or clogging of the holes. Record this information on the inspection form. The pre-filter cartridges can be further inspected by removing the cartridge tops and assessing the color of the BioMediaGREEN filter cubes (requires entry into pre-treatment chamber - see notes previous notes regarding confined space entry). Record the color of the material. New material is a light green color. As the media becomes clogged, it will turn darker in color, eventually becoming dark brown or black. The closer to black the media is the higher percentage that the media is exhausted and in need of replacement.



6. The biofiltration chamber is generally maintenance-free due to the system's advanced pre-treatment chamber. For units which have open planters with vegetation, it is recommended that the vegetation be inspected. Look for any plants that are dead or showing signs of disease or other negative stressors. Record the general health of the plants on the inspection form and indicate through visual observation or digital photographs if trimming of the vegetation is required.

7. The discharge chamber houses the control riser (if applicable), drain down filter (only in California - older models), and is connected to the outflow pipe. It is important to check to ensure the orifice is in proper operating condition and free of any obstructions. It is also important to assess the condition of the drain down filter media which utilizes a block form of the BioMediaGREEN. Assess in the same manner as the cubes in the pre-filter cartridge as mentioned above.

8. Finalize the inspection report for analysis by the maintenance manager to determine if maintenance is required.

MAINTENANCE INDICATORS

Based upon the observations made during inspection, maintenance of the system may be required based on the following indicators:

- Missing or damaged internal components or cartridges.
- Obstructions in the system or its inlet and/or outlet pipes.
- Excessive accumulation of floatables in the pre-treatment chamber in which the length and width of the chamber is fully impacted more than 18".
- Excessive accumulation of sediment in the pre-treatment chamber of more than 6" in depth.
- Excessive accumulation of sediment on the BioMediaGREEN media housed within the pretreatment cartridges. When media is more than 85% clogged, replacement is required. The darker the BioMediaGREEN, the more clogged it is and in need of replacement.
- Excessive accumulation of sediment on the BioMediaGREEN media housed within the drain down filter (California only - older models).
- Overgrown vegetation.

MAINTENANCE SUMMARY & EQUIPMENT LIST

The time has come to maintain your MWL. All necessary pre-maintenance steps must be carried out before maintenance occurs. Once traffic control has been set up per local and state regulations and access covers have been safely opened, the maintenance process can begin. It should be noted that some maintenance activities require confined space entry. All confined space requirements must be strictly followed before entry into the system. In addition, the following is recommended:

- Prepare the maintenance form by writing in the necessary information including project name, location, date & time, unit number and other info (see maintenance form).
- Set up all appropriate safety and maintenance equipment.
- Ensure traffic control is set up and properly positioned.
- Prepared pre-checks (OSHA, safety, confined space entry) are performed.
    - A gas meter should be used to detect the presence of any hazardous gases prior to entering the system. If hazardous gases are present, do not enter the vault. Following appropriate confined space procedures, take steps such as utilizing a venting system to address the hazard. Once it is determined to be safe, enter the system utilizing appropriate entry equipment such as a ladder and tripod with harness.

The following is a list of equipment required for maintenance of the MWL:



Modular Wetlands Linear Maintenance Form



Flashlight



Access Cover Hook



Ratchet
& 7/16" Socket
(if required for older pre-filter cartridges that have two bolts holding the lids on)



Vacuum Assisted Truck with Pressure Washer



Replacement
BioMediaGREEN
(If Required)

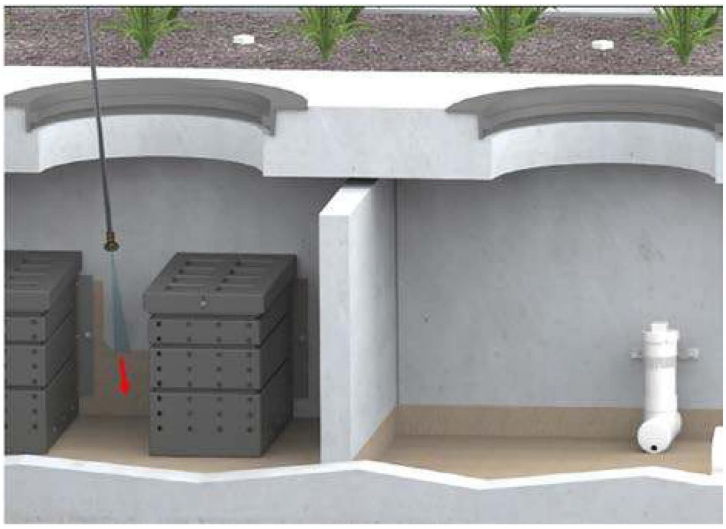
(order BioMediaGREEN from Contech's Maintenance Team members at https://www.conteches.com/maintenance)

MAINTENANCE INSTRUCTIONS



1. ACCESS COVER REMOVAL

Upon determining that the vault is safe for entry, remove all access cover(s) and position the vacuum truck accordingly.



2. PRESSURE WASH SYSTEM CHAMBERS

With the pressure washer, spray down pollutants accumulated on the walls and floors of the pre-treatment and discharge chambers. Then wash any accumulated sediment from the pre-filter cartridge(s).



3. VACUUM SYSTEM CHAMBERS

Vacuum out pre-treatment and discharge chambers and remove all accumulated pollutants including trash, debris, and sediments. Be sure to vacuum the pre-treatment floor until the pervious pavers are visible and clean. **(MWL systems outside of California may or may not have pervious pavers on the floor in the pre-treatment chamber)** If pre-filter cartridges require media replacement, proceed to **Step 4**. If not, replace the access cover(s) and proceed to **Step 7**.



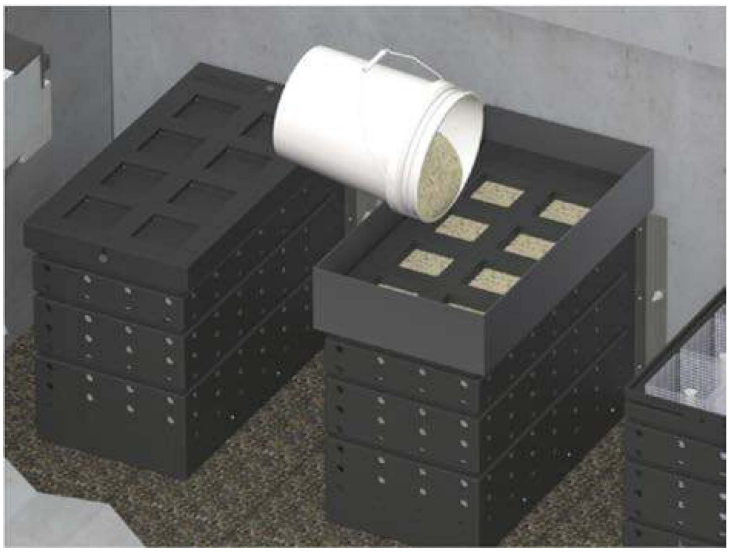
4. PRE-FILTER CARTRIDGE LID REMOVAL

After successfully cleaning out the pre-treatment chamber, enter the chamber and remove the lid(s) from the pre-filter cartridge(s) by removing the two thumb screws. (Older pre-filter cartridges have two bolts holding the lids on that require a 7/16" socket to remove)



5. VACUUM EXISTING PRE-FILTER MEDIA

Utilize the vacuum truck hose or hose extension to remove the filter media from each of the individual media cages. Once filter media has been sucked out, use a pressure washer to spray down the inside of the cartridge and its media cages. Remove cleaned media cages and place to the side. Once removed, the vacuum hose can be inserted into the cartridge to vacuum out any remaining material near the bottom of the cartridge.



6. PRE-FILTER MEDIA REPLACEMENT

Reinstall media cages and fill with new media from the manufacturer or outside supplier. Manufacturer will provide specification of media and sources to purchase. The easiest way to fill the media cages is to utilize a refilling tray that can also be sourced from the manufacturer. Place the refilling tray on top of the cartridge and fill with new bulk media shaking it down into the cages. Using your hands, lightly compact the media into each filter cage. Once the cages are full (each cartridge will hold five heaping 5gal buckets of bulk media), remove the refilling tray and replace the cartridge top, ensuring fasteners are properly tightened.



7. MAINTAINING VEGETATION

In general, the biofiltration chamber is maintenance-free with the exception of maintaining the vegetation. The MWL utilizes vegetation similar to surrounding landscape areas, therefore, trim vegetation to match surrounding vegetation. If any plants have died, replace them with new ones.



8. INSPECT UNDERDRAIN SYSTEM

Each vertical under drain on the biofiltration chamber has a removable threaded cap that can be taken off to check for any blockages or root growth. Once removed, a jetting attachment to the pressure washer can be used to clean out the under drain and orifice riser if needed.

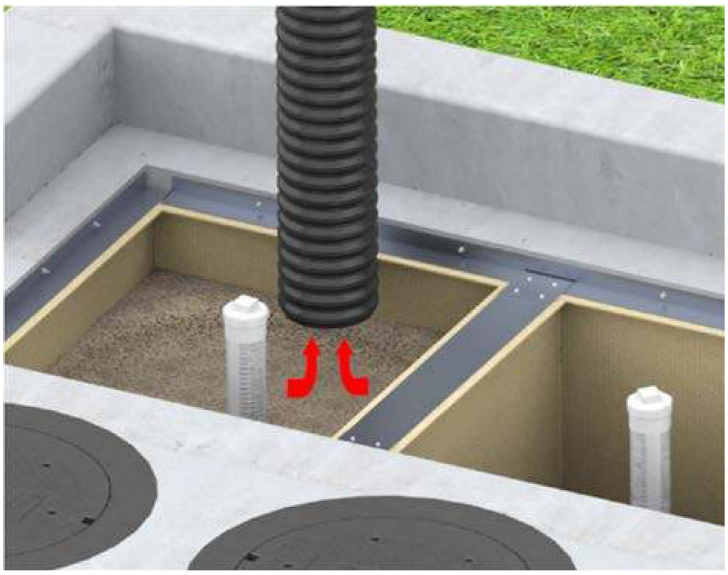


9. REPLACE ACCESS COVERS

Once maintenance is complete, replace all access cover(s)

REPLACING BIOFILTRATION MEDIA IF REQUIRED

As with all biofilter systems, at some point the biofiltration media will need to be replaced, either due to physical clogging or sorptive exhaustion (for dissolved pollutants) of the media ion exchange capacity (to remove dissolved metals and phosphorous). The general life of this media is 10 to 20 years based on site specific conditions and pollutant loading, so replacing the biofiltration media should not be a common occurrence. In the event that the biofiltration media requires replacement, contact one of Contech's Maintenance Team members at https://www.conteches.com/maintenance to order new biofiltration media. The quantity of media needed can be determined by providing the model number and unit depth. Media will be provided in super sacks for easy installation. Each sack will weigh between 1,000 and 2,000 lbs. Biofiltration media replacement can be done following the steps below:



1. VACUUM EXISTING BIOFILTRATION MEDIA

Remove the mulch and vegetation to access the biofiltration media, and then position the vacuum truck accordingly. Utilize the vacuum truck to vacuum out all the media. Once all media is removed, use the pressure washer to spray down all the netting and underdrain systems on the inside of the media containment cage. Vacuum out any remaining debris after spraying down netting. Inspect the netting for any damage or holes. If the netting is damaged, it can be repaired or replaced with guidance by the manufacturer.



2. INSTALLING NEW BIOFILTRATION MEDIA

Ensure that the chamber is fully cleaned prior to installation of new media into the media containment cage(s). Media will be provided in super sacks for easy installation. A lifting apparatus (forklift, backhoe, boom truck, or other) is recommended to position the super sack over the biofiltration chamber. Add media in lifts to ensure that the riser pipes remain vertical. Be sure to only fill the media cage(s) up to the same level as the old media.



3. REPLANT VEGETATION

Once the media has been replaced, replant the vegetation and cover biofiltration chamber with approved mulch (if applicable). If the existing vegetation is not being reused, and new vegetation is being planted, you will need to acquire new plant establishment media that will be installed just below the mulch layer at each plant location. (see plan drawings for details). Contact one of Contech's Maintenance Team members at https://www.conteches.com/maintenance to order new plant establishment media.

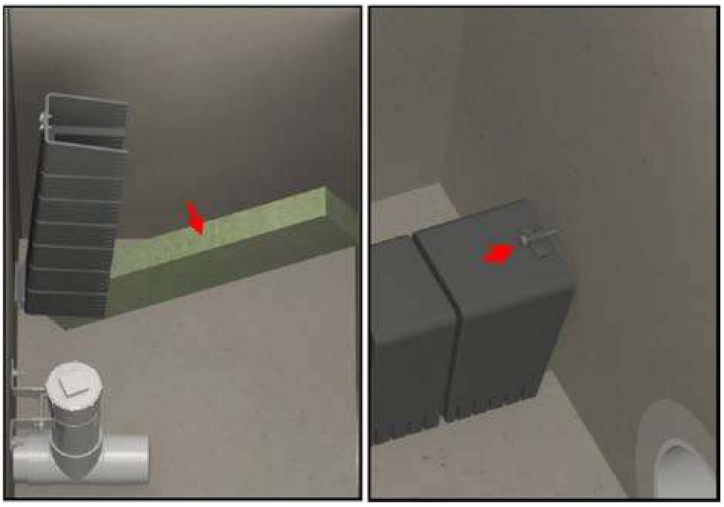
REPLACING DRAIN DOWN FILTER MEDIA (ONLY ON OLDER CALIFORNIA MODELS)

NOTE: The drain down filter is only found on units installed in California prior to 2023
If during inspection it was determined that the drain down filter media requires replacement, contact one of Contech's Maintenance Team members at https://www.conteches.com/maintenance to order new media.



1. REMOVE EXISTING DRAIN DOWN MEDIA

Pull knob back to unlock the locking mechanism and lift the drain down filter housing to remove the used BioMediaGREEN filter block.



2. INSTALL NEW DRAIN DOWN MEDIA

Ensure that the chamber and housing are fully cleaned prior to installation of new media, and then insert the new BioMediaGREEN filter block. The media filter block should fit snugly between the chamber walls and be centered under the filter housing. Lower the housing over the filter block and secure the locking mechanism.

NOTES

CONTECH® ENGINEERED SOLUTIONS

Inspection Report
Modular Wetlands Linear

Project Name _____

Project Address _____
(city) (Zip Code)

Owner / Management Company _____

Contact _____ Phone ( ) –

Inspector Name _____ Date ____ / ____ / ____ Time _____ AM / PM

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition _____ Additional Notes _____

For Office Use Only
(Reviewed By)
(Date) Office personnel to complete section to the left.

Inspection Checklist

Modular Wetland System Type (Curb, Grate or UG Vault): _____ Size (22', 14' or etc.): _____

Structural Integrity:	Yes	No	Comments
Damage to pre-treatment access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?			
Damage to discharge chamber access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?			
Does the MWS unit show signs of structural deterioration (cracks in the wall, damage to frame)?			
Is the inlet/outlet pipe or drain down pipe damaged or otherwise not functioning properly?			
Working Condition:			
Is there evidence of illicit discharge or excessive oil, grease, or other automobile fluids entering and clogging the unit?			
Is there standing water in inappropriate areas after a dry period?			
Is the filter insert (if applicable) at capacity and/or is there an accumulation of debris/trash on the shelf system?			
Does the depth of sediment/trash/debris suggest a blockage of the inflow pipe, bypass or cartridge filter? If yes specify which one in the comments section. Note depth of accumulation in in pre-treatment chamber.			Depth:
Does the cartridge filter media need replacement in pre-treatment chamber and/or discharge chamber?			Chamber:
Any signs of improper functioning in the discharge chamber? Note issues in comments section.			
Other Inspection Items:			
Is there an accumulation of sediment/trash/debris in the wetland media (if applicable)?			
Is it evident that the plants are alive and healthy (if applicable)? Please note Plant Information below.			
Is there a septic or foul odor coming from inside the system?			

Waste:	Yes	No
Sediment / Silt / Clay		
Trash / Bags / Bottles		
Green Waste / Leaves / Foliage		

Recommended Maintenance	
No Cleaning Needed	
Schedule Maintenance as Planned	
Needs Immediate Maintenance	

Plant Information	
Damage to Plants	
Plant Replacement	
Plant Trimming	

Additional Notes: _____

CONTECH® ENGINEERED SOLUTIONS

Cleaning and Maintenance Report
Modular Wetlands Linear

Project Name _____

Project Address _____ (city) (Zip Code)

Owner / Management Company _____

Contact _____ Phone ( ) –

Inspector Name _____ Date ____/____/____ Time _____ AM / PM

For Office Use Only
(Reviewed By)
(Date)
Office personnel to complete section to the left.

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition _____ Additional Notes _____

Site Map #	GPS Coordinates of Insert	Manufacturer / Description / Sizing	Trash Accumulation	Foliage Accumulation	Sediment Accumulation	Total Debris Accumulation	Condition of Media 25/50/75/100 (will be changed @ 75%)	Operational Per Manufactures' Specifications (If not, why?)
	Lat: Long:	MWS Catch Basins						
		MWS Sedimentation Basin						
		Media Filter Condition						
		Plant Condition						
		Drain Down Media Condition						
		Discharge Chamber Condition						
		Drain Down Pipe Condition						
		Inlet and Outlet Pipe Condition						

Comments:



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ENGINEERED SOLUTIONS

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800-338-1122

WWW.CONTECHES.COM

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SUPPORT

DRAWINGS AND SPECIFICATIONS ARE AVAILABLE AT WWW.CONTECHES.COM

ModWetLinear OM Manual 03/24

Contech® CMP Detention Inspection and Maintenance Guide

Underground stormwater detention and infiltration systems must be inspected and maintained at regular intervals for purposes of performance and longevity.

Inspection

Inspection is the key to effective maintenance of CMP detention systems and is easily performed. Contech recommends ongoing, annual inspections. Sites with high trash load or small outlet control orifices may need more frequent inspections. The rate at which the system collects pollutants will depend more on-site specific activities rather than the size or configuration of the system.

Inspections should be performed more often in equipment washdown areas, in climates where sanding and/or salting operations take place, and in other various instances in which one would expect higher accumulations of sediment or abrasive/corrosive conditions. A record of each inspection is to be maintained for the life of the system.

Maintenance

CMP detention systems should be cleaned when an inspection reveals accumulated sediment or trash is clogging the discharge orifice. Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities. Contech suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Annual inspections are best practice for all underground systems. During this inspection if evidence of salting/de-icing agents is observed within the system, it is best practice for the system to be rinsed, including above the spring line soon after the spring thaw as part of the maintenance program for the system.

Maintaining an underground detention or infiltration system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

The foregoing inspection and maintenance efforts help ensure underground pipe systems used for stormwater storage continue to function as intended by identifying recommended regular inspection and maintenance practices. Inspection and maintenance related to the structural integrity of the pipe or the soundness of pipe joint connections is beyond the scope of this guide.



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CONTECH® CMP DETENTION SYSTEMS

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Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

Stormwater Pollution

What you should know for...

Industrial & Commercial Facilities

Best Management Practices (BMPS) for:

- Industrial Facilities
- Commercial Facilities



Riverside County Stormwater Program Members

City of Banning
(951) 922-3105

City of Beaumont
(951) 769-8520

City of Calimesa
(909) 795-9801

City of Canyon Lake
(951) 244-2955

City of Cathedral City
(760) 770-0340

City of Coachella
(760) 398-3502

City of Corona
(951) 736-2447

City of Desert Hot Springs
(760) 329-6411

City of Eastvale
(951) 361-0900

City of Hemet
(951) 765-2300

City of Indian Wells
(760) 346-2489

City of Indio
(760) 391-4000

City of Jurupa Valley
(951) 332-6464

City of Lake Elsinore
(951) 674-3124

City of La Quinta
(760) 777-7000

City of Menifee
(951) 672-6777

City of Moreno Valley
(951) 413-3000

City of Murrieta
(951) 304-2489

City of Norco
(951) 270-5607

City of Palm Desert
(760) 346-0611

City of Palm Springs
(760) 323-8299

City of Perris
(951) 943-6100

City of Rancho Mirage
(760) 324-4511

City of Riverside
(951) 826-5311

City of San Jacinto
(951) 487-7330

City of Temecula
(951) 694-6444

City of Wildomar
(951) 677-7751

Coachella Valley Water District
(760) 398-2651

County of Riverside
(951) 955-1000

Riverside County Flood Control District
(951) 955-1200

YOU can prevent Stormwater Pollution following these practices...

Industrial and Commercial Facilities

The Riverside County Stormwater Program has identified a number of Best Management Practices (BMPs) for Industrial and Commercial Facilities. These BMPs control and reduce stormwater pollutants from reaching our storm drain system and ultimately our local water bodies. City and County ordinances require businesses to use these BMPs to protect our water quality. Local cities and the County are required to verify implementation of these BMPs by performing regular facility inspections.

Prohibited Discharges

Discontinue all non-stormwater discharges to the storm drain system. It is *prohibited* to discharge any chemicals, paints, debris, wastes or wastewater into the gutter, street or storm drain.

Outdoor Storage BMPs

- Install covers and secondary containment areas for all hazardous materials and wastes stored outdoors in accordance with County and/or City standards.
- Keep all temporary waste containers covered, at all times when not in use.
- Sweep outdoor areas instead of using a hose or pressure washer.
- Move all process operations including vehicle/equipment maintenance inside of the building or under a covered and contained area.
- Wash equipment and vehicles in a contained and covered wash bay which is closed-loop or connected to a clarifier sized to local standards and discharged to a sanitary sewer or take them to a commercial car wash.



Spills and Clean Up BMPs

- Keep the work site clean and orderly. Remove debris in a timely fashion. Sweep up the area.
- Clean up spills immediately when they occur, using dry clean up methods such as absorbent materials or sweep followed by proper disposal of materials.
- Always have a spill kit available near chemical loading dock doors and vehicle maintenance and fueling areas.
- Follow your Business Emergency Plan, as filed with the local Fire Department.
- Report all prohibited discharges and non-implementation of BMPs to your local Stormwater Coordinator as listed on the back of this pamphlet.
- Report hazardous materials spills to 951-358-5055 or call after hours to 951-782-2973 or, if an emergency, call the Fire Department's Haz Mat Team at 911.



Plastic Manufacturing Facilities BMPs

AB 258 requires plastic product manufacturers to use BMPs, such as safe storage and clean-up procedures to prevent plastic pellets (nurdles) from entering the waterway. The plastic pellets are released into the environment during transporting, packaging and processing and migrate to waterways through the storm drain system. AB 258 will help protect fish and wildlife from the hazards of plastic pollution.

Training BMPs

As prescribed by your City and County Stormwater Ordinance(s), train employees in spill procedures and prohibit non-stormwater discharges to the storm drain system. Applicable BMP examples can be found at www.cabmphandbooks.com.

Permitting

Stormwater discharges associated with specific categories for industrial facilities are regulated by the State Water Resources Control Board through an Industrial Stormwater General Permit. A copy of this General Permit and application forms are available at: www.waterboards.ca.gov, select stormwater then the industrial quick link.

To report illegal dumping or for more information on stormwater pollution prevention call: 1-800-506-2555 or e-mail us at: fcnpdes@rcflood.org.

CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

THE FOLLOWING BMPs MUST BE PROPERLY USED AT ALL CONSTRUCTION SITES IN RIVERSIDE COUNTY TO PROTECT OUR WATERSHEDS FROM POLLUTION

BMPs must be properly installed and maintained on a year round basis.

Construction sites are prohibited from discharging pollutants into storm drains and introducing pollutants to local waterways, rivers, lakes and streams.
To stay in compliance with the law and keep your project on schedule, make sure your BMPs are in place and properly functioning. Your site must be checked and maintained daily.

Erosion Control

Erosion prevention is the most important measure for keeping sediment onsite during construction.

Wherever possible, rely on erosion controls to keep sediment in place. Minimize the disturbed area to protect natural features and soil. Control stormwater flowing onto and through the project. Phase construction activity and stabilize soils promptly. Prevent erosion by implementing soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding. Perform a walk-through of the site to assess stabilization practices.

Concrete Trucks /Pumpers / Finishers

BMPs such as tarps and gravel bags should be implemented to prevent materials and residue from entering into the storm drain system.

Dumpsters

Always cover dumpsters. Areas around dumpsters should be cleaned daily. Perimeter controls around dumpster area should be provided if pollutants are leaking or discharging from the dumpster. The dumpster must be fully contained on the construction site and not in the right-of-way.

Washout Area

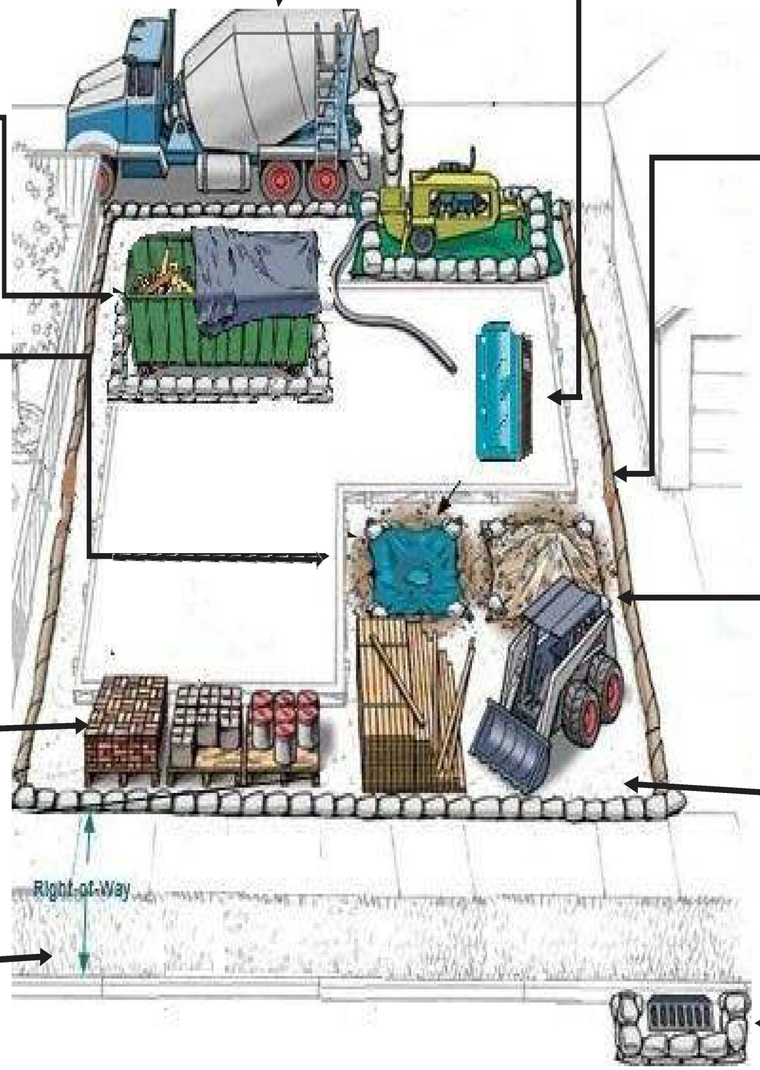
The disposal of "wet" construction materials should be handled in the washout area. This includes paint, stucco, and concrete. Do not wash out paint brushes in the street or dump any residue in the storm drain. Paint brushes and spray guns must be washed out into a hazardous materials drum, or back into the original container and disposed of properly. Washouts should never be in direct contact with the existing ground. Use a berm with an impervious liner to contain wet materials and prevent runoff to nearby areas. The washout area must be checked and maintained daily to ensure compliance. All dried material must be disposed of at a landfill.

Building Materials /Staging Area

Construction material must be stored on site at all times. Building material should always be covered when not in use to prevent dispersal or runoff caused by wind or rain. Flooding must also be prevented by monitoring your site before, during, and after rain events to ensure that BMPs are functioning properly and that there are not any safety issues.

Encroachment Permits

The right-of-way varies from the face of the curb to the private property line. Any construction work within the right-of-way requires an encroachment permit.



Portable Toilets

Portable toilets must be placed on a flat level surface away from any flow line. Portable toilets must have a secondary containment tray. Portable toilets must also be placed behind the curb. Avoid cleaning solutions from coming in contact with the soil.

Perimeter Controls

Perimeter controls are different and separate from erosion controls. Gravel bags, silt fences, and straw wattles are acceptable perimeter controls, and must be used to surround the entire site. Avoid running over perimeter controls with vehicles or heavy equipment to prevent damage to the BMPs. Keep extra absorbent materials and/or wet dry vacuum on site to quickly pick up unintended spills.

Dirt and Grading

Dust control measures shall be implemented during grading operations and throughout all aspects of site development. Mounds of dirt or gravel should be stored on site and sprayed daily with water to prevent excessive dust. The materials should be covered when not in use. For areas that are active and exposed, a wet weather active plan, including additional BMPs, should be in place to protect the site during a rain event. Sites must have a designated entrance/exit with adequate track out controls to prevent the transport of dirt/gravel from the site.

Earthmoving Equipment

Vehicles and earthmoving equipment should be cleaned, fueled and maintained off-site or in a designated contained area. Mud tracks and dirt trails left by equipment leading to and from the site must be cleaned up immediately.

Storm Drains

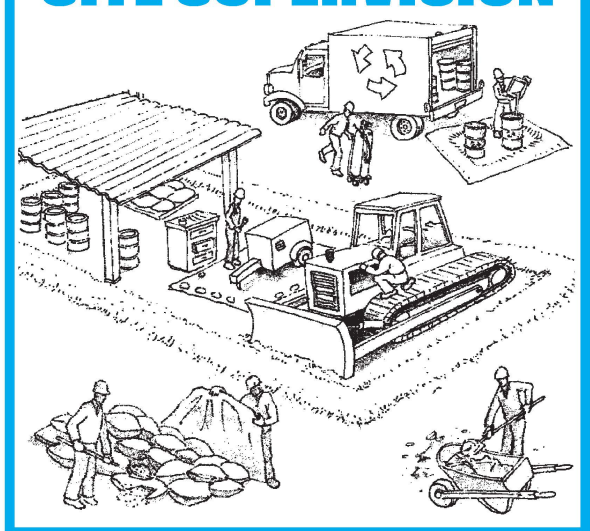
Storm drains must be protected at all times with perimeter controls, use ¾ inch gravel bags. Sand bags should not be used for inlet protection because they do not permit flow-through. Replace ruptured or damaged gravel bags and remove debris from the right-of-way immediately.

Revised December 2014

Water Pollution Prevention

What you should know for...

GENERAL CONSTRUCTION & SITE SUPERVISION



Best Management Practices (BMPs) for:

- Developers
- General Contractors
- Home Builders
- Construction Inspectors
- Anyone in the construction business

To report a hazardous materials spill, call:

During normal business hours
(7:00 a.m. to 5:30 p.m.)
Riverside County Department of Environmental Health
(951)-358-5172 or **1-888-722-4234**
www.rivcoeh.org.

After business hours, on weekends or holidays, call **(951)-782-2968**

In an emergency, dial **911**

For hazardous waste disposal information call:

(951) 358-5055

To report an illegal discharge or a clogged storm drain, call:

1-800-506-2555

For more information, please call the Riverside County's "Only Rain Down the Storm Drain" Water Pollution Prevention Program at 1-800-506-2555 or www.rcflood.org

The "Only Rain Down the Storm Drain" Pollution Prevention Program acknowledges The City of Coronado for the information provided in brochure.

Resources

State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento CA 95814
(916) 341-5455
www.swrcb.ca.gov/water_issues/programs/stormwater

Colorado River Basin Regional Water Quality Control Board - Region 7
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491
www.waterboards.ca.gov/coloradoriver

Santa Ana Regional Water Quality Control Board - Region 8
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(951) 782-4130
www.waterboards.ca.gov/santaana

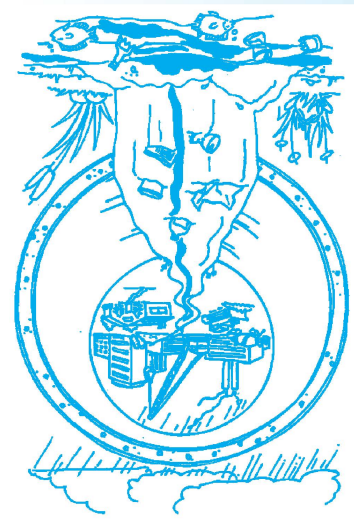
San Diego Regional Water Quality Control Board - Region 9
2375 Northside Drive Suite 100
San Diego, CA 92108
(619) 516-1990
www.waterboards.ca.gov/sandiego

Stormwater Pollution . . . What You Should Know

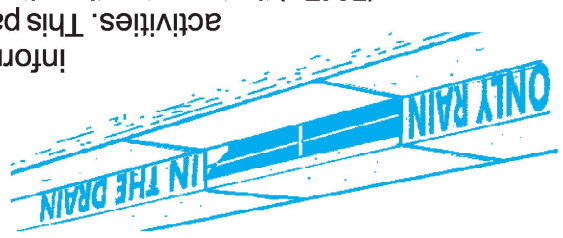
Riverside County has two drainage systems - sewers and storm drains. The storm drain system was designed to reduce flooding by carrying excess rainwater away from streets and developed areas. The storm drain system does not provide water treatment. It is connected directly to our local waterways.

Unlike sanitary sewers, storm drains are not connected to a wastewater treatment plant – they flow directly to our local streams, rivers and lakes.

Stormwater runoff is a part of the natural hydrologic process. However, land development and construction activities can affect the natural drainage processes and introduce pollutants into stormwater runoff. Polluted stormwater runoff from construction sites has been identified as a major source of water pollution in California. It jeopardizes the quality of our local waterways and can pose a serious threat to the health of our aquatic ecosystems.



The Cities and County of Riverside Water Pollution Prevention Program



Because preventing pollution is much easier and less costly than cleaning up "after the fact," Cities and County of Riverside's "Only Rain Down the Storm Drain" Water Pollution Prevention Program informs residents and businesses on pollution prevention activities. This pamphlet describes various Best Management Practices (BMPs) that construction site operators can use to prevent stormwater pollution.

In accordance with applicable federal and state law, the Cities and County of Riverside have adopted ordinances for stormwater management that prohibit the discharge of pollutants into the storm drain system or local surface water. This includes discharges from construction sites containing sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, and construction debris.

PLEASE NOTE: The Federal, State and local regulations strictly prohibit the discharge of sediment and pollutants into the streets, the storm drain system or waterways. As an owner, operator or supervisor of a construction site, you may be held financially responsible for any environmental damage caused by your subcontractors or employees.



WATER POLLUTION PREVENTION FOR CONSTRUCTION ACTIVITIES

The two most common sources of stormwater pollution problems associated with construction activities are ***erosion*** and ***sedimentation***. Failure to maintain adequate erosion and sediment controls at construction sites often results in sediment discharges into the storm drain system, creating multiple problems once it enters local waterways.

Construction vehicles and heavy equipment can also track significant amounts of mud and sediment onto adjacent streets. Additionally, wind may transport construction materials and wastes into streets storm drains, or directly into our local waterways.

What Should You Do?
Advance Planning to Prevent Pollution

- ❑ Remove existing vegetation only as needed.
- ❑ Schedule excavation, grading, and paving operations for dry weather periods, if possible.
- ❑ Designate a specific area of the construction site, well away from storm drain inlets or watercourses, for material storage and equipment maintenance.
- ❑ Develop and implement an effective combination of erosion and sediment controls for the construction site.
- ❑ Practice source reduction by ordering only the amount of materials that are needed to finish the project.
- ❑ Educate your employees and subcontractors about stormwater management requirements and their pollution prevention responsibilities.
- ❑ Control the amount of surface runoff at the construction site by impeding internally generated flows and using berms or drainage ditches to direct incoming offsite flows to go around the site. ***Note:*** *Consult local drainage policies for more information.*

Best Management Practices

The following Best Management Practices (BMPs) can significantly reduce pollutant discharges from your construction site. Compliance with stormwater regulations can be as simple as minimizing stormwater contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site.

- ❑ Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- ❑ Limit access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- ❑ Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- ❑ Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- ❑ Phase grading operations to limit disturbed areas and duration of exposure.
- ❑ Perform major maintenance and repairs of vehicles and equipment offsite.
- ❑ Wash out concrete mixers only in designated washout areas at the construction site.
- ❑ Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- ❑ Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- ❑ Clean-up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas. .
- ❑ Prevent erosion by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding.
- ❑ Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- ❑ Practice proper waste disposal. Many construction materials and wastes, including solvents, water-based paint, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ❑ Cover open dumpsters with secured tarps or plastic sheeting. Never clean out a dumpster by washing it down on the construction site.
- ❑ Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

General Construction Activities Stormwater Permit
(Construction Activities General Permit)

The State Water Resources Control Board (SWRCB) adopted a new Construction Activities General Permit (Order No. 2010-0014-DWQ) on September 2, 2009, This permit is administered and enforced by the SWRCB and the local Regional Water Quality Control Boards (RWQCB). The updated Construction Activities General Permit establishes a number of new stormwater management requirements for construction site operator.

NOTE: *Some construction activies stormwater permits are issued on a regional basis. Consult your local RWQCB to find out if your project requires coverage under any of these permits.*

Frequently Asked Questions:

How do I know if I need a Construction Activities General Permit?

If your construction project requires a land disturbance of one acre or more, or less than one acre but part of a larger common plan of development or sale.

How do I obtain coverage under the Construction Activities General Permit?

The Legally Responsible Person (LRP) must electronically submit Permit Registration Documents (PRDs) prior to commencement of construction activities in the Storm Water Multi-Application Report Tracking System (SMARTS).

PRDs consist of the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the LRP, and the first annual fee. Once these components have been submitted and are deemed complete by the SMARTS system, a WDID number will automatically be emailed to the LRP.

What must I do to comply with the requirements of the Construction Activities General Permit?

- ● Have a qualified SWPPP Developer (QSD) prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction activities.
- ● Have a qualified SWPPP Practitioner (QSP) implement the SWPPP.
- ● Keep a copy of the SWPPP at the construction site for the entire duration of the project.
- ● Implement an effective combination of erosion and sediment control on all soil disturbed areas.
- ● Conduct site inspections prior to anticipated storm events, every 24-hours during extended storm events, and after an actual storm event.
- ● Implement BMPs for non-stormwater discharges year-round.
- ● Perform repair and maintenance of BMPs as soon as possible after storm events depending upon worker safety.
- ● Update the SWPPP as needed, to manage pollutants or reflect changes in site conditions.
- ● Include description of post construction BMPs at the construction site, including parties responsible for long-term maintenance.

NOTE: *Please refer to the Construction Activities General Permit for detailed information. You may contact the SWRCB, your local RWQCB, or visit the SWRCB website at www.swrcb.ca.gov/water_issues/programs/stormwater/ for more information.*

Revised July 2014

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PLANNING AND ENVIRONMENTAL SERVICES

Technical Memorandum

To: Rami Dabliz, PM Design

From: Cameron Hile, Project Manager MIG

CC: Kasey Kitowski, Noise Analyst MIG

Date: October 8, 2026

SUBJECT: Noise and Vibration Analysis for the Green Bee Concrete Contractor Yard Project in Perris, CA

MIG, Inc. (MIG) has prepared this memorandum at the request of PM Design Group. This memorandum evaluates the potential noise and vibration impacts resulting from the implementation of the proposed Green Bee Contractor Yard on Sherman Road in Perris, CA (proposed project). As explained in this memorandum, the proposed project would not generate operational noise levels that exceed city standards or otherwise result in a substantial permanent increase in ambient noise levels in the vicinity of the project and would not be subjected to excessive airport-related noise levels. In addition, the proposed project would not generate a substantial temporary increase in noise or vibration levels during construction with the incorporation of Mitigation Measures NOI-1 and NOI-2, which require the project to provide advanced notification of construction activities, restrict work hours to daytime periods when humans are less sensitive to elevated noise levels, implement equipment noise control measures, install temporary noise barriers, and prohibiting the use of certain vibration generating equipment.

PROJECT DESCRIPTION

The proposed project would involve the development of a new contractor yard with an approximately 25,405 square foot building, an approximately 43,470 square foot lumber yard, and a parking lot with 150 passenger vehicle spaces and 29 truck spaces. The proposed project would be located at 25775 Sherman Road, in the City of Perris (Assessor's Parcel Number (APN) 329-240-031 and 329-240-028). The project site consists of an irregularly-shaped, approximately 5.49-acre undeveloped parcel of land zoned as Light Industrial.

Vehicles would access the site from Sherman Road using a driveway in the northeast corner of the site. The remainder of the northern portion of the site would be covered by the parking lot, with passenger vehicle parking located to the east and truck parking located to the west. The project building, which would include a storage facility and mechanics shop, would be located in the southeast portion of the site, and the lumber yard, which would include three covered shade structures, would be located in the southwest portion of the site. Refer to Attachment 01 for the project's proposed site plan.

The proposed project site is bordered by a waste management center to the north (in the City of Menifee), Sherman Road to the east (in the City of Menifee), a residential and a light industrial property to the southeast, undeveloped land to the south, and residential land and undeveloped land to the west. State Route 74 (SR-74) is located approximately 670 feet northeast of the

project site and Interstate 215 (I-215) is located approximately 0.4 miles west.[1] There are no schools located within 1,000 feet of the project site.[2]

The proposed project would involve site preparation, grading, new building construction, paving, and architectural coating. Construction activities are assumed to begin as early as 2027 and last approximately 14 months. The proposed project's construction schedule and anticipated equipment usage is listed in Table 1.

Table 1: Green Bee Concrete Contractor Yard Project Construction Activities

Construction Phase	Duration (Days)	Typical Equipment Used
Site Preparation	10	Dozer, Tractor/Loader/Backhoe
Grading	20	Grader, Dozer, Excavator, Tractor/Loader/Backhoe
Building Construction	230	Crane, Forklift, Tractor/Loader/Backhoe, Generator, Welder
Paving	20	Paver, Roller, Paving Equipment
Architectural Coating	20	Air Compressor

The project is expected to be operational in 2028. Once operational, the project would operate as a commercial land use and is expected to generate approximately 340 gross vehicle trips per day (Ganddini Group, 2026).

The following sections describe the ambient noise environment near the proposed project and evaluate the proposed project's potential to impact the existing noise environment near the project. Please refer to Attachment 02 for background information on environmental noise and vibration, including commonly used terminology.

EXISTING NOISE ENVIRONMENT

The proposed project is located in the southeast corner of the City of Perris. The Perris General Plan identifies vehicle traffic, air traffic, rail traffic, the Perris Auto Speedway, March Inland Port, and Perris Valley Airport and Skydiving Center as the main sources of noise in the city. It is noted the project site is bordered by the city of Perris to the north, east, and west.

On Wednesday, September 11, 2024, to Thursday, September 12, 2024, MIG, Inc. conducted noise monitoring to evaluate existing ambient noise conditions in the vicinity of the project site. Noise levels were measured with one Larson Davis Model LxT, Type I, sound level meter and one Piccolo II, Type 2 sound level meter. The meters' receiving microphone was set to a height of five feet above ground level; approximately the same height as a human receptor. Noise monitoring was conducted in one-minute intervals. Conditions during the monitoring were partly cloudy with temperatures ranging from the mid-50s to the mid-80s, with light, approximately seven (7) mile per hour (mph) winds.

One long-term (LT) measurement and one short-term (ST) measurement were conducted to determine typical ambient noise levels in the vicinity of the project area, provide direct observations of existing noise sources at and in the vicinity of the project area, and evaluate

[1] Measurements are based on the distance between the project site's nearest property line and the edge of the closest lane of travel.

[2] The closest school is Romoland Elementary School located approximately 0.5 miles west of the project site.

project noise levels at nearby sensitive receptors. The two monitoring locations are described below and shown in Figure 1.

- Location LT-1 was at the northwest portion of the project site, approximately 655 feet west of the centerline of Sherman Road and approximately 670 feet east of the centerline of Trumble Road.
- Location ST-1 was in the eastern side of the project site, approximately 15 feet west of the centerline of Sherman Road.

Figure 1: Ambient Noise Monitoring Locations



Table 2 summarizes the results of the noise monitoring. Refer to Attachment 03 for detailed noise monitoring data.

Table 2: Existing Ambient Noise Levels (dBA)

Location	Duration	Measured Noise Level (dBA)			
		L_{eq}	L_{min}	L_{max}	CNEL
LT-1	24 hours	50.6	37.8	69.8	57.3
ST-1	1 hour	61.0	40.2	81.4	--

Source: MIG, 2026 (See Attachment 03)

Noise Sensitive Receptors

Noise sensitive land uses and receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. The City's General Plan defines sensitive noise receptors as land uses that are adversely affected by various noise sources; such land uses are defined in Section 16.22.020 of the City's Municipal Code which identifies residences, schools, libraries, hospitals, churches, offices, hotels, motels, and outdoor recreational areas as sensitive noise receptors (City of Perris, 2016, p. 6). Based on the City's General Plan and Municipal Code, the noise sensitive receptors within 1,000 feet of the proposed project site include:

- The residential property that borders the project site's southeastern corner, addressed at 3042 Sherman Road, in the City of Perris.
- Residential properties across Sherman Road, approximately 75 to 225 feet east of the project site, in the City of Menifee. The closest of these properties do not have a direct line of sight to the project; only residences located 225 feet east of the project area have a direct line of sight into the project area.
- Residential properties that border and are adjacent to the project site to the west, addressed as 25710 to 25870 Trumbull Road, in the City of Menifee. These properties include residential and other ancillary buildings (e.g., sheds, garages, etc.). The closest noise sensitive use area associated with these properties is 125 feet from the project's sites western boundary.
- Single-family residential uses across SR-74, approximately 770 feet northeast of the project site, in the City of Menifee.
- Single-family residential uses south of Ethanac Road, approximately 990 feet southeast of the project site, in the City of Menifee.

APPLICABLE NOISE AND VIBRATION REGULATIONS

The noise and vibration regulations that are relevant to the evaluation of the proposed project's potential noise and vibration impacts are summarized below.

Federal Transit Administration

There are no federal noise and vibration regulations that directly apply to the proposed project; however, the Federal Transit Administration (FTA) has published guidance on predicting and assessing the noise and vibration impacts of proposed transit projects, including guidance for assessing noise and vibration during construction of such projects. The FTA's ground-borne vibration annoyance criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings where people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day, such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day), and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance (criteria are summarized in Table 3. It is noted that, with regards to construction vibration sources, many types of construction activities fall between the FTA's frequent, occasional, and infrequent event criteria due to the mostly intermittent and mobile nature of typical construction equipment.

Table 3: FTA Ground-Borne Vibration Impact Criteria for General Assessment			
Vibration Land Use Category/Type	**Frequent Events**	**Occasional Events**	**Infrequent Events**
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB
Source: FTA, 2018			

State Noise and Vibration Regulations

Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that set various construction and building requirements. Part 2, California Building Code, Section 1206, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies between adjacent dwelling units and sleeping units and between dwelling units and sleeping units and adjacent public areas. The Building Standards Code establishes that **i**nterior noise levels attributable to exterior noise sources shall not exceed 45 DNL or CNEL (as set by the local General Plan) in any habitable room.[3]

California Department of Transportations (Caltrans)

The Caltrans' Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies and provides recommended thresholds for evaluating potential vibration impacts on buildings (i.e., structural damage). These thresholds are summarized in Table 4. The thresholds vary depending on whether the vibration source is continuous or transient in nature. A transient source creates an isolated vibration event, such as blasting. Continuous sources also include sources with intermittent but frequent vibration events. While vehicle traffic is considered a continuous vibration source, many types of construction activities fall between continuous and transient in nature.

Table 4: Caltrans' Vibration Threshold Criteria for Building Damage		
Structural and Condition	**Peak Particle Velocity (inches/second)**	
	Transient Sources	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial and commercial structures	2.0	0.5
Source: Caltrans, 2020		

[3] Title 24, Part 2, Section 202, Definitions, defines "habitable space" to be "space for living, sleeping, eating, or cooking." Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

Perris Municipal Code

Title 7 of the Perris Municipal Code, Health and Welfare, Chapter 7.34, Noise Control, sets forth that unnecessary, excessive, or annoying noise levels are a nuisance and may be detrimental to the health and safety of individuals and establishes the following standards for regulating noise:

- **Section 7.34.040, Sound Amplification,** sets forth no person shall amplify sound using sound amplifying equipment unless such equipment is used only to amplify music and/or the human voice and the volume of the amplified sound does not exceed a maximum sound level (L_{max}) of 80 dBA during the daytime (7:01 AM to 10:00 PM) and 60 dBA during the nighttime (10:01 PM to 7:00 AM) when measured outdoors at or beyond the property line of the property from which the sound emanates.
- **Section 7.34.050, General Prohibition**, sets forth that it is unlawful for any person to willfully make, cause or suffer, or permit to be made or caused, and 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 cause physical discomfort to the inhabitants of the city. This section also sets forth that the standards for dBA noise levels identified in Section 7.34.040, Sound Amplification, apply to this Section 7.34.050, and that 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 decibel it shall be presumed to violate Section 7.34.050 of the Municipal Code, although the following characteristics and conditions should be considered in determining whether a violation exists: the level of the noise, whether the noise is usual or unusual, the level of the ambient noise, the proximity of the noise to sleeping facilities, zoning (both at the source and the receiving land uses), the time of day or night the noise occurs, the duration of the noise, and whether the noise is recurrent, intermittent, or constant.
- **Section 7.34.060, Construction Noise,** sets forth that it is unlawful for any person to erect, construct, demolish, excavate, alter, or repair any building or structure in such a manner as to create disturbing, excessive, or offensive noise between the hours of 7 PM of any day and 7 AM of the following day, or on Sundays, or on a legal holiday excepting Columbus Day and Washington's birthday. This section also sets forth that construction activity shall not exceed 80 dBA L_{max} in residential zones in the City.
- **Section 7.34.070, Refuse Vehicles and Parking Lot Sweepers,** sets forth 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 PM to 7 AM in any residential area unless a permit has been granted by the City.
- **Section 7.34.080, Disturbing, Excessive, Offensive, Noises,** declares certain activities cause loud, disturbing, excessive or offensive noises, including, but not limited to:
    - Unnecessary use or operation of horns, signaling devices, or other similar devices on automobiles, motorcycles, or any other vehicle (Section 7.34.080(1))
    - Leaf blowers that exceed a sound level of 80 decibels as measured at a distance of 50 feet or greater from the point of noise origin (Section 7.34.080 (7)(c)).
- **Section 7.34.090, Burglar Alarms,** prohibits audible burglar alarms for structures or motor vehicles unless the alarm can be terminated within 20 minutes of being activated.

Title 16 of the Perris Municipal Code, Buildings and Construction, Chapter 16.22.010, Construction Located Near Arterials, Railroads, and Airports, sets forth standards for insulation against noise for residential development and other noise impacted areas in the vicinity of

arterials, railroads, and airports where the exterior CNEL exceeds 60 dBA. Relevant standards include:

- **Section 16.22.020, Definitions,** defines noise sensitive land uses to include, but not be limited to, residences, schools, libraries, hospitals, churches, offices, hotels, motels, and outdoor recreational areas. This definition also notes that noise-sensitivity factors include interference with speech communication, subjective judgement of noise acceptability and relative noisiness, price for freedom from noise intrusion, and sleep interference criteria.

Perris General Plan

The City's General Plan Noise Element describes the City's existing and future noise environment and sets forth the steps the City will take to assure that land use decisions include consideration of noise impacts and are consistent with the objectives of the Noise Element. The Noise Element contains the following goals, policies, and implementation measures that are relevant to the proposed Project (City of Perris, 2016).

- Goal 1: Land Use Siting. Future land uses compatible with project noise environments.
    - Policy 1.A: The State of California Noise/land Use Compatibility Criteria shall be used in determining land use compatibility for new development.
        - Implementation Measure 1.A.1: All new development proposals will be evaluated with respect to the State Noise/Land Use Compatibility Criteria. Placement of noise sensitive uses will be discouraged within any area exposed to exterior noise levels that fall into the "Normally Unacceptable" range and prohibited within areas exposed to "Clearly Unacceptable" noise ranges.
- Goal IV Air Traffic Noise. Future land uses compatible with noise from air traffic.
    - Policy IV.A: Reduce or avoid the existing and potential future impacts from air traffic on new sensitive land uses in areas where air traffic noise is 60 dBA CNEL or higher.
        - Implementation Measure IV.A.1: As part of any approvals for new sensitive land uses within the 60 dBA CNEL or higher noise contours associated with March Inland Port, and for such new uses within the flight paths associated with the Perris Valley Skydiving Center, the City will require the developer to issue disclosure statements identifying exposure to regular aircraft noise. This disclosure shall be issued at the time of initial and all subsequent sales of the affected properties.
        - Implementation Measure IV.A.2: All new development proposals in the noise contour areas of 60 dBA and above will be evaluated with respect to the State Noise/Land Use Compatibility Criteria.
- Goal V, Stationary Source Noise. Future non-residential land uses compatible with noise sensitive land uses.
    - 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.

For single family residential land uses, the City's General Plan sets forth that 60 CNEL is the normally acceptable noise limit, 65 CNEL is the conditionally acceptable noise limit, and 75 CNEL is the normally unacceptable noise limit. Noise levels above 75 CNEL are considered clearly unacceptable for single family residential land uses. For office buildings, business, commercial, professional, and mixed-use developments, the City's General Plan sets forth that 65 CNEL is

the normally acceptable noise limit and 75 CNEL is the conditionally acceptable noise limit. Noise levels above 75 CNEL are considered normally unacceptable for these land uses types. For industrial, manufacturing, utilities, and agriculture land uses, the City's General Plan sets forth that 70 CNEL is the normally acceptable noise limit and 80 CNEL is the conditionally acceptable limit. Noise levels above 80 CNEL are considered normally unacceptable for these land uses (City of Perris, 2016, Exhibit N-1).

NOISE AND VIBRATION ANALYSIS

The project would generate noise during construction and operation of the proposed contractor's yard. The following analysis assesses if the project would:

a) 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 for the City of Menifee or the City of Perris, or applicable standards of other agencies;

b) Generate excessive groundborne vibration or groundborne noise levels; or

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, expose people residing or working in the project area to excessive noise levels.

With regard to criterion a), the proposed project would result in a significant construction noise impact if it would:

- Generate construction noise levels that violate or conflict with Municipal Code Section 7.34.060 (Construction Noise).

In addition, with regard to criterion (A), the proposed project would result in a significant operational noise impact if it would:

- Result in on-site noise levels that violate or conflict with City standards contained in:
  - Municipal Code Chapter 7.34.040 (Sound Amplification);
  - Municipal Code Section 7.34.050 (General Prohibition; or
  - General Plan Noise Element Exhibit N-1 (Land Use/Noise Compatibility Guidelines)
- Cause or contribute to a substantial increase in traffic noise levels at off-site locations, defined as more than a 3 dBA increase in traffic noise levels.

With regard to criterion b), the proposed project would result in excessive groundborne vibration or groundborne noise if it would:

- Generate continuous, construction-related vibration levels that exceed Caltrans' guidance for potential damage to older residential structures (0.3 inches per second); or
- Generate construction-related vibration levels that exceed the FTA's guidance for adverse human response to frequent events (72 VdB for residential land uses and 75 VdB for commercial land uses).

With regard to criterion c), the proposed project would expose people living or working in the Project area to excessive airport-related noise levels if it would conflict with an applicable airport land use plan or otherwise expose people to excessive airport-related noise levels from a public or private air facility.

As described in the "Noise Sensitive Receptors" section, the proposed project site is near sensitive receptors located both in the City of Perris and the City of Menifee. This analysis evaluates the proposed project's construction noise levels against the standards contained in City of Perris Municipal Code Section 7.34.060. The Perris Municipal Code limits construction activities to the hours of 7 AM to 7 PM and is more restrictive than the Menifee Municipal Code.[4] In addition, the Perris Municipal Code also sets a numeric limit (80 dBA L_{max}) on the noise level from construction activity in residential zones while the Menifee Municipal Code does not have a numeric noise threshold for construction. With regards to operational noise, this analysis evaluates the proposed project's operational noise levels against the standards in the Perris Municipal Code and General Plan because the project would involve the operation of noise sources in Perris, not Menifee. It is noted that Perris municipal code generally establishes maximum noise standards while the Menifee Municipal Code applies energy-averaged noise levels over a period of time, and that maximum instantaneous standards are generally more restrictive than energy-averaged standards. In addition, both the Perris General Plan and the Menifee General Plan establish 60 CNEL as the normally acceptable limit for single-family residential land uses; however, the City of Perris establishes 65 CNEL as the conditionally acceptable limit for single-family residential uses while the City of Menifee establishes 70 CNEL as the conditionally acceptable limit.

Temporary Construction Noise

The proposed project would involve site preparation, grading, building construction, paving and architectural coating construction activities. These activities are anticipated to begin in 2027 and may last approximately 14 months in total. In general, construction activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as (but not limited to) dozers, backhoes, tractors, loaders, graders, excavators, scrapers, welders, rollers, cranes, material lifts, generators, pavers, paving equipment, and air compressors. These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas. Some heavy equipment would consist of mobile equipment such as a loader and excavator that would move around work areas; other equipment would consist of stationary equipment (e.g., cranes or material hoists/lifts) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems, and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.
- Vehicle trips, including worker, vendor, and haul truck trips. These trips are likely to primarily occur on Ethanac Road and Sherman Road. Worker trips usually consist of passenger cars and light- to medium-duty trucks. Vendor and haul truck trips usually consist of medium-heavy and heavy-heavy duty trucks.

Table 5 presents the maximum equipment noise levels associated with the typical types of construction equipment that are likely to be used during project construction activities.

[4] Menifee Municipal Code Title 8, Buildings and Construction, Section 8.01.010 limits construction that occurs within a quarter of a mile of an occupied residence to 6:30 AM through 7:00 PM on Mondays through Saturdays. Construction is prohibited on Sundays and nationally recognized holidays unless approval is obtained from the City Building Official or City Engineer.

Table 5: Maximum Project Construction Equipment Noise Levels							
Equipment	**Predicted Equipment Noise Levels (L_{max})$^{(A)}$**						
	25 Feet	**50 Feet**	**75 Feet**	**125 Feet**	**225 Feet**	**300 Feet**	**500 Feet**
Backhoe	86	80	76	72	67	64	60
Bulldozer	91	85	81	77	72	69	65
Compact roller	86	80	76	72	67	64	60
Compressor	86	80	76	72	67	64	60
Concrete Mixer	91	85	81	77	72	69	65
Crane	91	85	81	77	72	69	65
Delivery Truck	90	84	80	76	71	68	64
Excavator	91	85	81	77	72	69	65
Generator	88	82	78	74	69	66	62
Grader	91	85	81	77	72	69	65
Man Lift	91	85	81	77	72	69	65
Paver	91	85	81	77	72	69	65
Pneumatic tools	91	85	81	77	72	69	65
Pumps	83	77	73	69	64	61	57
Scraper	91	85	81	77	72	69	65
Tractor	90	84	80	76	71	68	64
Vacuum Truck	91	85	81	77	72	69	65
Welder	80	74	70	66	61	58	54
Backhoe	86	80	76	72	67	64	60
Bulldozer	91	85	81	77	72	69	65
Compact roller	86	80	76	72	67	64	60

Sources: MIG (see Attachment 04), Caltrans, 2013, and FHWA, 2010.

(A) L_{max} noise levels based on manufacturer's specifications at 50 feet. Predicted noise levels calculated pursuant to Equation 1 (see "Permanent Operational Noise" section).

As shown in Table 5, the maximum construction equipment noise levels could be above the city's construction noise standard of 80 dBA L_{max} at residential properties with uninterrupted line of sight to within 75 feet of the project area, which is limited to the residential property that borders the project to the southeast. For all other residential properties in the vicinity of the project site, maximum construction noise levels would be less than 80 dBA L_{max}.[5]

The magnitude of the project's temporary and periodic increase in ambient noise levels would depend on a number of project-specific factors that are not known at this time, including: the specific type of equipment being used; the distance between the area where equipment is being operated and the location of the receptor where noise levels would be perceived; the time of day

[5] In general, maximum equipment noise levels do not occur in the same place at the same time and, therefore, maximum noise levels from two or more pieces of equipment are not combined for noise estimation purposes.

construction activities are occurring; the presence or absence of any walls, buildings, or other barriers that may absorb or reflect sound waves; the total duration of the construction activities; and the existing ambient noise levels near construction areas. While the Perris Municipal Code limits construction activities to specific time periods, project construction activities could, as described above, exceed the city's 80 dBA L_{max} standard at the residential property that borders the site to the southeast. This is considered a potentially significant impact. To reduce the potential for the project construction activities to result in a substantial temporary increase in ambient noise levels in the vicinity of the project site that could exceed city standards, MIG recommends the project incorporate Mitigation Measure NOI-1:

Mitigation Measure NOI-1: Reduce Potential Construction Noise Levels

To reduce potential construction noise levels the project shall:

A. *Notify Nearby Land Uses of Planned Construction Activities.* This notice shall be provided at least two (2) weeks prior to the start of any construction activities, describe the noise control measures to be implemented by the project, and include the name and phone number of the designated developer's or contractor's representative responsible for handling construction-related noise complaints (per Mitigation Measure NOI-1, section E). This notice shall be provided to the owner/occupants of residential dwelling units within 250 feet of construction work areas.

B. *Restrict Work Hours:* Unless otherwise authorized by the City, all construction-related work activities, including material deliveries, shall be conducted only during the hours of 7 AM to 7 PM Monday to Saturday. Construction activities shall not occur any time on Sundays and legal holidays, excepting Columbus Day and Washington's Birthday. The project shall post a sign at all entrances to the work site informing contractors, subcontractors, other workers, etc. of this requirement.

C. *Construction Staging and Equipment Noise Control Measures*:

   1. Construction site access and staging activities such as receipt of deliveries, equipment and material storage, etc., shall occur as far away from adjacent residential land uses as possible given site and active work constraints.

   2. All stationary noise generating equipment shall be shielded and located as far as possible from residential land uses given site and active work constraints. Shielding may consist of trailers, stored materials, or a three- or four-sided enclosure provided the structure/barrier breaks the line of sight between the equipment and the receptor, provides for proper equipment ventilation and operations, and complies with all other applicable occupational safety and health requirements.

   3. Heavy equipment shall include standard noise suppression devices such as mullers, engine covers, and engine/mechanical isolators, mounts, etc. Equipment and noise suppression devices shall be maintained in accordance with manufacturer's recommendations while on-site.

   4. Pneumatic tools shall include a suppression device on the compressed air exhaust

   5. Connect to existing electrical service to power stationary and portable equipment (e.g., pumps, generators, compressors, and welding sets). This measure shall be subject to the approval of the local electric utility.

   6. No radios or other amplified sound devices shall be audible beyond the property line of the construction site.

D. *Construction Activity Noise Control Measures:*

1. Noise Barrier Installation: An 8-foot-tall noise barrier shall be installed during all site preparation, grading, and structural foundation work activities (including concrete slab pours) that have a direct line of sight to an occupied dwelling unit located within 75 feet of construction work areas. The barrier shall only be required along the portion of the job site / work area perimeter that lies between the active work area and the affected dwelling unit. The barrier shall consist of nominal 0.5-inch plywood with a minimum material density of 1.7 pounds per square foot installed, or other commercially available acoustic panels, blankets, etc. that have a minimum sound transmission class or transmission loss value of 20 dB. The barrier shall be installed at grade or mounted to structures located at grade, such as a K-rail, and be maintained free of openings or gaps (other than weep holes).
    a. Construction ingress/egress shall not be permitted through the barrier unless there is no other viable access point due to specific project constraints or other access requirements.
    b. The noise barrier may be removed following the completion of all site preparation, grading, building foundation, and paving work (i.e., it is not necessary once framing and typical vertical building construction begins provided no other site preparation, grading, or paving work is still occurring in the area).
    c. The noise barrier shall not be required if the proposed project's permanent 8-foot-tall and 14-foot-tall perimeter walls are installed prior to grading, building foundation, and paving activities (i.e., a temporary barrier is not required if a permanent barrier is already in place in the affected area).

The above analysis indicates that future development at the project site could generate construction noise levels above city's residential (80 dBA L_{max}) construction noise criterion. The implementation of Mitigation Measure NOI-1 would require the project to provide advanced notification of construction activities, restrict work hours to daytime periods when humans are less sensitive to elevated noise levels, implement equipment noise control measures, and install temporary noise barriers. The use of equipment in good working order with standard noise suppression devices and the shielding of stationary noise generating equipment per Mitigation Measure NOI-1, Section C, is estimated to result in a 2 dBA to 5 dBA reduction in modeled equipment noise levels.[6] In addition, the installation of a 8-foot-tall temporary noise barrier per Mitigation Measure NOI-1, Section D, is estimated to result in a minimum 11 dBA reduction in estimated equipment noise levels at the residential property that borders the site to the southeast. Mitigation Measure NOI-1 would, therefore, lower potential construction noise levels by 13 to 18 dBA, from approximately 91 dBA L_{max} to 73 dBA L_{max} to 78 dBA L_{max}. This mitigated construction noise level would be below the Perris Municipal Code construction noise standard for residential land uses (80 dBA L_{max}). In addition, by providing advanced notice of loud construction activities and implementing equipment control measures and temporary noise barriers, the potential for noise levels to surprise, annoy, or interfere with sensitive residential receptors and land uses would be substantially reduced. Thus, the implementation of Mitigation Measure NOI-1 would render the project's potential temporary construction-related noise increases a less than significant impact.

[6] The FHWA's reference construction equipment noise levels are based, in part, on measured data from construction projects occurring in the 1990s with equipment manufactured as early as the 1970's. Newer equipment would include enhanced shields, mounts, and noise suppression controls that lower equipment noise levels below reference data.

Permanent Operational Noise

Once constructed, the proposed project would operate as a contractor's yard that would generate noise from on- and off-site vehicle travel, on-site heating, ventilation, and air conditioning equipment (HVAC), saws, and shop/maintenance activities.

The proposed project's operational noise levels were estimated using standard theoretical equations for predicting environmental noise levels (Caltrans, 2013). For an ideal point source of sound, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. The change in noise levels between two distances can be calculated according to Equation 1 as follows:

Equation 1

$$dBA2 = dBA1 + 20\log (D1/D2)$$

Where:

dBA1 = Known noise level, such as a reference noise level
D1 = Distance associated with dBA1
dBA2 = Noise level at distance 2
D2 = Distance associated with dBA2

For an ideal line source of sound, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a cylindrical pattern from the source. Theoretically, the sound level attenuates, or decreases, by 3 dB with each doubling of distance from the line source. The change in noise levels between two distances can be calculated according to Equation 2 as follows:

Equation 2

$$dBA2 = dBA1 + 10\log (D1/D2)$$

Where:

dBA1 = Known noise level, such as a reference noise level
D1 = Distance associated with dBA1
dBA2 = Noise level at distance 2
D2 = Distance associated with dBA2

For noise sources that do not operate continuously (e.g., vehicles and trucks that travel on-site, park, and then cease to generate noise), the average, hourly noise level associated with variable (i.e., non-steady) noise source can be calculated using Equation 3 as follows:

Equation 3

$$\text{Hourly } L_{eq} = 10 * \text{Log } (P_h) * 10^{(Lp/10)}$$

Where:

P_h = Percentage or fraction of hour the noise is generated
L_p = The noise level generated during the partial hour (P_h)

Finally, the total combined sound pressure level from multiple, identical sources of noise at a receiver location can be calculated using Equation 4 as follows:

Equation 4

$$SPL_{Total} = SPL_1 + 10 * Log\ (N)$$

Where:

SPL_1 = Sound pressure level of one source

N = Number of identical sources to be added

Reference and potential hourly average noise levels associated with the proposed project's noise sources are summarized in Table 6. All reference noise levels are presented at a distance of three (3) feet from the source.

Table 6: Project Noise Sources – Reference and Hourly L_{eq} Noise Levels

Noise Source	Reference dBA(A)	Duration(B)	Hourly L_{eq}(C)
On-site Automobile Trip			
Low speed travel (15 mph)/parking	*55*	*30*	*34.2*
Door closing	*80*	*2*	*47.4*
Engine start/rev	*90*	*10*	*64.4*
Total Combined Noise Level			*64.5*
On-Site Truck Trip			
Low speed travel (15 mph)	*96*	*30*	*75.2*
Maneuvering (with backup alarm)	*100*	*60*	*82.2*
Air brake release	*98*	*3*	*67.2*
Main engine idling	*86*	*300*	*75.2*
Door closing	*80*	*2*	*47.4*
Engine start/rev	*100*	*20*	*77.4*
Total Combined Noise Level			*84.7*
Forklift			
Operation	*70*	*1800*	*67.0*
Backup Alarm	*92*	*90*	*76.0*
Total Combined Noise Level			*76.5*
HVAC Unit			
Operation (5 Ton)	*80*	*3,600*	*80.0*
Saw			
Operation (low, not cutting)	*65*	*1200*	*60.2*
Operation (high, cutting)	*90*	*2400*	*88.2*
Total Combined Noise Level			*88.2*
Mechanics Shop			
Miscellaneous Operations	*70*	*3,600*	*70.0*

Source: Caltrans, 2013; Carrier, 2018, FHWA, 2018.

(A) Reference dBA is L_{max} and is based on a distance of 3 feet.

(B) Duration is used to estimate the percentage of time the noise is generated per Equation 2 (out of 3,600 seconds in an hour).

(C) Hourly L_{eq} estimated using Equation 3. Estimates do not include any attenuation provided by noise barriers or parapet walls.

Predicted Noise Levels at Adjacent Residential Properties

The proposed project's potential noise levels were estimated using the reference and calculated hourly L_{eq} noise levels identified in Table 6, adjusted for distance (per Equation 1), operational nature (per Equation 3), and the amount of vehicle trips, truck activity, forklift activity, saw operations, HVAC operations, and mechanics shop operations, that could occur at the same time (per Equation 4). The individual and total combined noise levels resulting from the proposed project are discussed below. Refer to Attachment 05 for detailed information regarding the proposed project's noise level estimates.

The proposed project's on-site noise sources would include:

- Automobile travel to parking spaces, automobile parking, and other miscellaneous automobile noise sources such as doors closing and engines starting, idling, etc. All vehicular access would occur along the driveway in the northeast corner of the project site and along drive aisles and parking areas in the eastern and central portions of the project site. On-site automobile travel is assumed to occur at low speeds (15 miles per hour or less).
- Delivery and concrete pump truck travel, maneuvering, and parking in the truck parking area in the northwest corner of the project site. On-site truck travel is assumed to occur at low speeds (10 miles per hour or less). Six delivery and six concrete pump trucks would leave the site in the morning and return in the afternoon/evening.
- Cargo handling equipment. The project would involve the use of three small forklifts or other hand-, electric, or natural gas-powered cargo/goods handling equipment to package and move materials.
- Rooftop-mounted HVAC unit. This system would condition approximately 14,207 square feet of mezzanine office space and is assumed to be rated at 5 tons or less. For the purposes of this analysis, HVAC units were assumed to be a Carrier Model 48HC or equivalent-type unit located in the center of the office roof area, fully concealed behind a parapet wall that would provide at least 5 dBA of noise shielding.
- Lumber saws. Two table saws located under the covered shade structures would be used to cut form boards, stakes, and the dimensional lumber.
- Mechanics shop. The mechanics shop would be used to maintain trucks and equipment as needed. Maintenance work would occur inside; however, roll up doors would be opened, meaning noise from the maintenance shop would only be controlled on three sides.
- Waste collection services. Waste collection would occur for no more than 15 minutes a day up to two times a week. This activity would not substantially change the project's overall noise level estimates and are not evaluated further.
- Landscaping activities: Landscaping activities would occur intermittently and would not substantially change the project's overall noise level estimates. Thus, landscaping activities are not evaluated further.

The proposed project would operate five days a week (Monday to Friday) from approximately 6 AM to 5 PM. The proposed project would have a limited potential impact adjacent land uses because the project design includes an 8-foot-tall masonry wall along its northern, eastern, and western boundary, and a 14-foot-tall masonry wall along the southern boundary line shared with residential uses.

The project's potential operational noise levels were modeled at 5 different residential property line locations, as shown and summarized in Figure 2.

Figure 2: Project Noise Level at Modeled Residential Receptors



Noise Metric	Noise Level at Modeled Receptor (dBA)				
	R1	R2	R3	R4	R5
Maximum Project Noise Level (dBA L_{max})	46.6	51.6	48.3	57.8	55.5
City Code Standard (dBA L_{max})	Daytime: 80 dBA L_{max} / Nighttime: 60 dBA L_{max}				
City Code Standard Exceeded?	No	No	No	No	No
Existing CNEL[(B)]	67.3	67.3	57.3	57.3	57.3
Project CNEL	45.4	44.5	44.8	53.1	50.9
Existing Plus Project CNEL	67.3	67.3	57.5	58.7	58.2
Net Change[(C)]	0.0	0.0	0.2	1.4	0.9
Potentially Significant Change?[(D)]	No	No	No	No	No

Source: MIG, 2026 (see Attachment 05)
(A) See Table 2.
(B) For residential receptors, the net change in noise is considered significant if there is a 5 dBA or more increase and the noise environment remains less than 60 CNEL, a 3 dBA or more increase and the noise environment remains below 65 CNEL, or a 1 dBA or more increase and the noise environment is above 65 CNEL.

The results of the modeling indicate:

- Stationary Source Equipment: The proposed project's stationary HVAC unit, saws, and machine shop operations would produce a noise level up to approximately 40 dBA L_{max} at receptors to the west of the project site (R3, R4, and R5). This noise level would be well below the 80 dBA L_{max} daytime (7 AM to 10 PM) or 60 dBA L_{max} nighttime (10 PM to 7 AM) standards established by the city's Municipal Code.
- Total Site Operations: Site operations, including automobile trips, truck trips, forklift operations, and stationary noise sources would produce a worst-case noise level up to approximately 58 dBA L_{max} and 54 dBA Leq at R4; noise levels at all other receptors would be less than the modeled noise levels at R4.
    - Exterior Noise Levels at Residential Receptors R1 to R5: Existing plus project noise levels at sensitive residential receptors would increase by less than 2 CNEL at all receptors and remain below the City's normally acceptable 60 CNEL land use compatibility guideline for residential land uses at R3, R4, and R5. R1 and R2 are already exposed to noise levels above 65 CNEL, which is within the city's normally unacceptable noise guideline; however, the proposed project would not change the existing ambient noise levels at R1 or R2. Therefore, the project's potential increase in noise levels at sensitive residential receptors would be less than significant.
    - Interior Noise Levels at Residential Receptors R1 to R5: Existing plus project noise levels at residential receptors R3, R4, and R5 would not exceed approximately 59 CNEL. In general, standard construction techniques for residential buildings in California provide a minimum of 12 dBA of exterior to interior noise attenuation with windows open and between 20 dBA to 30 dBA of exterior to interior noise attenuation with windows closed.[7] Thus, interior noise levels at R3, R4, and R5 would be less than 45 CNEL with windows closed. The existing noise levels at R1 and R2 are 67.3 CNEL; however, the proposed project would not change this noise level and, therefore, would have no impact on interior noise levels at R1 or R2. Therefore, the proposed project's potential increases in interior noise levels at sensitive residential receptors would be less than significant.

As described above, the proposed project's operations would not result in a noise levels that exceed city standards or otherwise result in a substantial permanent increase in noise levels at sensitive noise receptors. This impact would be less than significant.

[7] The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 32 dB to 35 dB of attenuation between exterior and interior noise levels, provided there are no doors in the assembly and windows do not occupy more than 30% of the exterior wall space. Attenuation may be 2 – 3 dB less for traffic noise frequencies.

Off-site Noise Level Increases

The proposed project would generate traffic that would be distributed onto the local roadway system and potentially increase noise levels along travel routes. Caltrans considers a doubling of total traffic volume to result in a three dBA increase in traffic-related noise levels (Caltrans, 2013a). If the proposed project would not result in a doubling of traffic volumes on the local roadway system, it would not result in a substantial permanent increase in traffic-related noise levels.

The Transportation Screening Assessment prepared for the project identifies the project would generate up to 340 total daily vehicle trips. All of this project-related traffic would occur on Sherman Road, which has an estimated existing traffic volume of at least several thousand vehicles a day (City of Menifee, 2013a and 2013b).[8] The proposed project would not result in a doubling of traffic volumes on Sherman Road or any other road near the project site. Since the proposed project would result in substantially less than a doubling of daily traffic volumes on roadways used to access the site it would not result in a substantial, permanent increase in off-site traffic noise levels. This impact would be less than significant.

Ground-borne Vibration and Noise

Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and at high levels can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping (e.g., a hospital). Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response. Pile drivers and other pieces of high-impact construction equipment are generally the primary cause of construction-related vibration impacts; however, the proposed project would not require the use of pile drivers.

Construction equipment and activities are categorized by the nature of the vibration they produce. Equipment or activities typical of continuous vibration sources include excavation and compaction equipment. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors. Table 7 presents the typical vibration levels for the type of equipment that is most likely to be used during construction of the proposed project.

[8] The Menifee General Plan Circulation Element identifies Sherman Road as a “major” road with a capacity to carry up to 34,100 vehicles per day.

Table 7: Ground-borne Vibration from Typical Construction Equipment						
Equipment	**Peak Particle Velocity (in/sec)[(A)]**					
	25 Feet	**50 Feet**	**100 Feet**	**200 Feet**	**400 Feet**	**500 Feet**
Small bulldozer	0.003	0.001	0.001	0.000	0.000	0.000
Jackhammer	0.035	0.016	0.008	0.004	0.002	0.001
Loaded truck	0.076	0.035	0.017	0.008	0.004	0.003
Large bulldozer	0.089	0.042	0.019	0.009	0.004	0.003
Vibratory Roller	0.210	0.098	0.046	0.021	0.010	0.008
Equipment	**Velocity Decibels (VdB)[(B)]**					
	25 Feet	**50 Feet**	**100 Feet**	**200 Feet**	**400 Feet**	**500 Feet**
Small bulldozer	58.0	49.0	39.9	30.9	21.9	19.0
Jackhammer	79.0	70.0	60.9	51.9	42.9	40.0
Loaded truck	86.0	77.0	67.9	58.9	49.9	47.0
Large bulldozer	87.0	78.0	68.9	59.9	50.9	48.0
Vibratory Roller	94.0	85.0	75.9	66.9	57.9	55.0

Sources: Caltrans, 2020 and FTA, 2018

(A) Estimated PPV calculated as: PPV(D)=PPV(ref)*(25/D)^1.1 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils).

(B) Estimated Lv calculated as: Lv(D)=Lv(25 feet)-30Log(D/25) where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 feet; and D= distance from equipment to receiver.

As shown in Table 7, potential vibration levels associated with construction equipment depend on the type of equipment used. For structural damage, the use of equipment during construction activities would produce PPV levels up to 0.098 in/sec at 50 feet. These PPV values are well below Caltrans' guidelines standards for potential structural damage for older residential structures (0.3 PPV for continuous vibration sources; see Table 4). For human annoyance and interference responses, the use of typical equipment (e.g., bulldozer, jack hammer, trucks, etc.) during construction could produce vibration levels that exceed the FTA's adverse human response criteria for frequent events at occupied residential structures (72 VdB, see Table 3) within 80 feet of work areas. Thus, there is the potential for adverse human response from vibrations associated with typical project construction activities. For specific vibration-generating equipment such as a vibratory roller, construction could exceed the FTA's criterion for residential uses (72 VdB) at occupied structures within approximately 140 feet of vibratory roller operations. Thus, there is also the potential for adverse human response from vibrations generated by a vibratory roller during construction. These estimates assume there is no change in subsurface conditions that may affect vibration transmission through soil media and structures.

It is noted that potential construction-related vibrations would be intermittent (not occur every day), limited in duration (equipment would move throughout work areas and not operate in the same location for a prolonged amount of time), and occur during the daytime (when receptors would not be sleeping and, therefore, are considered less sensitive to vibration levels). As described above, the proposed project's construction activities would not result in physical damage to any existing structures, but could exceed FTA criteria for annoyance at occupied residences to the southeast and west of the project site. The generation of ground-borne vibration levels above the FTA's annoyance criterion would be a potentially significant impact. To reduce the potential for future development at the rezone sites to generate excessive

ground-borne vibration levels, the project shall incorporate Mitigation Measure NOI-2 into the project:

Mitigation Measure NOI-2: Prohibit Vibratory Equipment.

To reduce potential construction vibration levels the project shall:

A. *Notify Nearby Land Uses of Planned Construction Activities.* See Mitigation Measure NOI-1, Section A.

B. *Restrict Work Hours.* See Mitigation Measure NOI-1, Section B.

C. *Prohibit Vibratory Equipment.* The use of vibratory rollers, vibratory/impact hammers and other potential large vibration-generating equipment (e.g., hydraulic breakers/hoe rams) shall be prohibited within 140 feet of any structure unless site- or project-specific conditions or design considerations require the use of such equipment. Plate compactors and compactor rollers are acceptable, and deep foundation piers or caissons shall be auger drilled.

Mitigation Measure NOI-2 requires the project to limit the potential for ground-borne vibration during construction activities by prohibiting the use of certain vibration generating equipment. Mitigation Measure NOI-2 requires the project to provide advance notice of construction activities, limit construction activities to daytime hours, and prohibit the use of certain vibration generating equipment that could exceed FTA standards intended to limit adverse human responses to ground-borne vibration levels. These measures would ensure equipment and work activities would not result in excessive vibrations that could lead to human annoyance. This impact would be less than significant with mitigation.

Once constructed, the proposed project would not involve the use of equipment or activities that would generate excessive ground-borne vibration levels at adjacent residential properties and impacts would be less than significant.

Airport-Related Noise

The proposed project site is located approximately 2.1 miles southeast from the nearest airport, Perris Valley Airport and approximately 8.8 miles southeast from the March Air Reserve Base. The project site is not within any noise contours for the Perris Valley Airport or March Air Reserve Base (Riverside County Airport Land Use Commission 2010, Map PV-3 and Air Force Reserve Command 2018, Figure 4-2). The proposed project would not expose people working in the project area to excessive aircraft noise levels.

CONCLUSION

As described in this memo, the proposed project would not generate temporary or permanent noise levels that would exceed the City's standards or otherwise result in a substantial increase in ambient noise levels with the incorporation of Mitigation Measure NOI-1, would not generate excessive groundborne vibration or groundborne noise levels with the incorporation of Mitigation Measure NOI-2, and would not expose people residing or working in the project area to excessive aircraft noise levels. The proposed project, therefore, would not result in a substantial, adverse noise-related effect on the environment.

PREPARERS AND REFERENCES

This memorandum was prepared by MIG under contract to PM Design Group and reflects the independent, objective, professional opinion of MIG. The following individuals were involved in the preparation and review of this memorandum:

Kasey Kitowski, Air Quality and Noise Analyst

Chris Dugan, former Director of Air Quality, Greenhouse Gas, and Noise Services

The following references were used to prepare this memorandum:

Air Force Reserve Command 2018. Final Air Installations Compatible Use Zones Study March Air Reserve Base. 2018. https://www.cityofperris.org/home/showpublisheddocument/15140/637844263098200000

Riverside County Airport Land Use Commission 2010. Proposed Perris Valley Land Use Compatibility Plan. July 2010. https://www.cityofperris.org/home/showpublisheddocument/15144/637844263126930000

Ganddini 2026. PM Design Group Green Bee Contractor Yard Traffic Impact Analysis. September 11, 2026.

California Department of Transportation (Caltrans) 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Sacramento, California. September 2013.

_____2020. Transportation and Construction Vibration Guidance Manual. Sacramento, California. September 2013.

Carrier, 2018. 48HC High Efficiency Gas Heat/Electric Cooling Packaged Rooftop 3 to 12.5 Nominal Tons Product Data. 2018.

City of Perris 2016. General Plan Noise Element. Available at: https://www.cityofperris.org/home/showpublisheddocument/461/637203139725000000

City of Menifee 2013. General Plan Circulation Element Exhibit C-2. Available at: https://www.cityofmenifee.us/DocumentCenter/View/1019/C-2-Roadway_Sections_HD0913?bidId=

_____2013. General Plan Circulation Element Exhibit C-3. Available at: https://www.cityofmenifee.us/DocumentCenter/View/18129/Exhibit-C-3_060723?bidId=

MIG, Inc. (MIG) 2026. Noise and Vibration Analysis for the Green Bee Concrete Contractor Yard Project in Perris, CA. October 2026.

U.S. Department of Housing and Urban Development (HUD). 2009a.HUD Noise Guidebook. Prepared by the Environmental Planning Division, Office of Environment and Energy. March 2009.

_____2009b. HUD Noise Guidebook, Chapter 4 Supplement: Sound Transmission Class Guidance. Prepared by the Environmental Planning Division, Office of Environment and Energy. March 2009.

U.S. Federal Highway Administration (FHWA) 2010. "Construction Noise Handbook, Chapter 9 Construction Equipment Noise Levels and Ranges." *U.S. Department of Transportation FHWA*. August 24, 2017. Accessed November 1, 2019 at: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

U.S. Federal Transit Administration (FTA) 2018. *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. Washington, DC. September 2018.

KK/CD

Attachment 01

PM Design Group Site Plan

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CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 7 DAYS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

PROPERTY DESCRIPTION (PER TITLE COMMITMENT POLICY NO. 24-106676)

ALL THAT CERTAIN REAL PROPERTY IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1:

LOT 739 OF ROMOLA FARMS NO. 6–A. IN THE CITY PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 14 PAGES 63, 64 AND 65 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

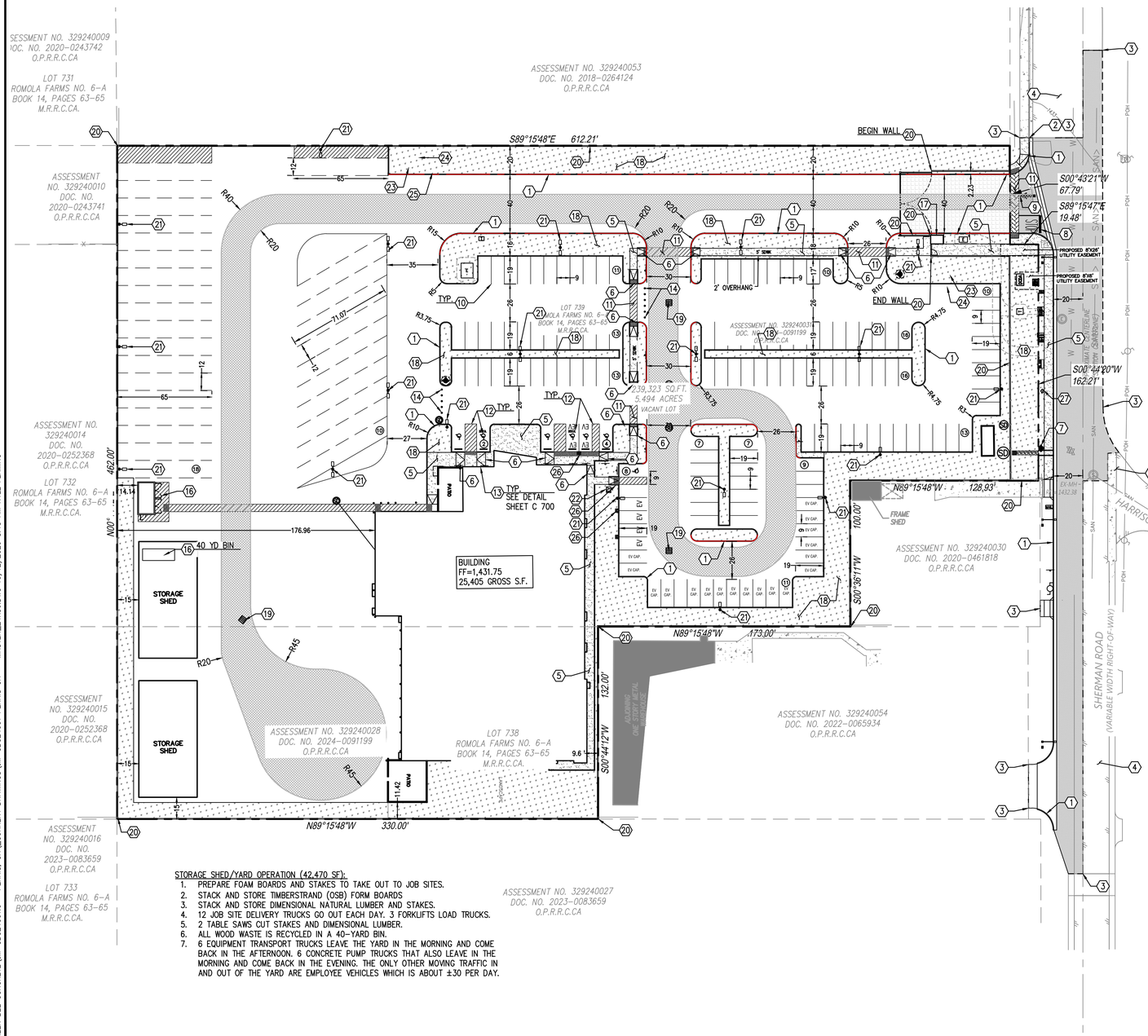
EXCEPTING THEREFROM THAT PORTION DESCRIBED AS FOLLOWS: .

BEGINNING AT THE SOUTHEAST CORNER: AND
THENCE NORTHERLY 100 FEET;
THENCE WESTERLY 130 FEET;
THENCE SOUTHERLY 100 FEET;
THENCE EAST 130 FEET TO THE POINT OF BEGINNING.

PARCEL 2:

THE WEST ONE ACRE OF THE NORTHERLY RECTANGULAR 132 FEET OF LOT 738 OF ROMOLA FARMS NO. 6–A, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 14 PAGES 63, 64 AND 66 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

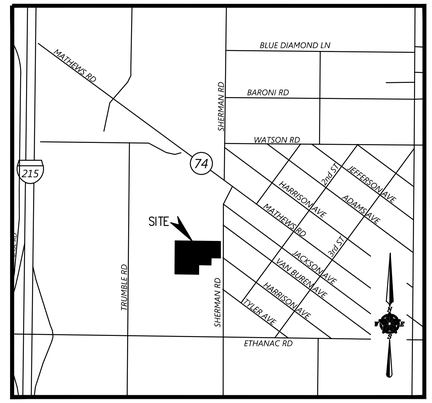
APN(S): 329–240–031, 329–240–028



STORAGE SHED/YARD OPERATION (42,470 SF):

1. PREPARE FOAM BOARDS AND STAKES TO TAKE OUT TO JOB SITES.
2. STACK AND STORE TIMBERSTRAND (OSB) FORM BOARDS
3. STACK AND STORE DIMENSIONAL NATURAL LUMBER AND STAKES.
4. 12 JOB SITE DELIVERY TRUCKS GO OUT EACH DAY. 3 FORKLIFTS LOAD TRUCKS.
5. 2 TABLE SAWS CUT STAKES AND DIMENSIONAL LUMBER.
6. ALL WOOD WASTE IS RECYCLED IN A 40–YARD BIN.
7. 6 EQUIPMENT TRANSPORT TRUCKS LEAVE THE YARD IN THE MORNING AND COME BACK IN THE AFTERNOON. 6 CONCRETE PUMP TRUCKS THAT ALSO LEAVE IN THE MORNING AND COME BACK IN THE EVENING. THE ONLY OTHER MOVING TRAFFIC IN AND OUT OF THE YARD ARE EMPLOYEE VEHICLES WHICH IS ABOUT ±30 PER DAY.

GRAPHIC SCALE
40 0 20 40
(IN FEET)
1 inch = 40 ft.



LOCATION MAP
NOT TO SCALE

SITE DATA TABLE

LOCATION:	SHERMAN RD & TYLER AVE AVE. PERRIS, CA 92585	
LOT AREA:	5.49 AC. (239,323 S.F.)	
ZONING:	LI–LIGHT INDUSTRIAL	
CURRENT USE:	VACANT	
PROPOSED USE:	TRUCK YARD AND OFFICE	
BUILDING DATA:		
BUILDING AREA	25,405 S.F.	
BUILDING HEIGHT	28 FT.	
BUILDING COVERAGE	10.61%	
F.A.R.	10.6:1	
PARKING SUMMARY:	**REQUIRED**	**PROVIDED**
PROFESSIONAL OFFICES: 14,265 SF	48	–
STORAGE YARD: 17,540 SF	18	–
TOTAL PER USE PARKING SPACES	66	150
TOTAL EV PARKING SPACES	15	24
TOTAL EVCS INSTALLED CHARGERS	6	6
TOTAL ACCESSIBLE EVCS INSTALLED CHARGERS	2	2
ACCESSIBLE SPACES	5	5
TRUCK SPACES	–	29
TOTAL SPACES	66	179
PERVIOUS:	40,430 S.F.	
IMPERVIOUS:	198,893 S.F.	

SITE LEGEND:

- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LIMITS OF FULL DEPTH SAWCUT
- FIRE LANE PAINTED CURB FACE
- PARKING COUNT
- FIRELANE
- ACCESSIBLE SPACES
- ADA RAMP
- BOLLARD
- TRAFFIC SIGN
- BOLLARD MOUNTED ACCESSIBLE SIGN
- STOP BAR
- STAMPED CONCRETE
- TRUNCATED DOME
- FIRE LANE
- DECORATIVE CONCRETE FOR ENRANCE
- LIGHT POLE
- AREA DRAIN
- GREASE TRAP
- CLEAN–OUT
- DOUBLE CLEAN–OUT
- GAS METER
- WATER METER
- IRRIGATION METER
- MANHOLE
- CURB INLET

SITE KEY NOTES:

1. CONCRETE CURB AND GUTTER. (PER LOCAL CODES)
2. TAPER CURB TO MATCH EXISTING.
3. MATCH EXISTING PAVEMENT ELEVATION.
4. EXISTING PAVEMENT TO REMAIN.
5. CONCRETE SIDEWALK. 2% MAX. CROSS SLOPE AND 5% MAX. STRAIGHT SLOPE. (PER LOCAL CODES)
6. SIDEWALK RAMP @ 8.33% MAX. (PER LOCAL CODES)
7. EXISTING FIRE HYDRANT.
8. STOP BAR. (PER LOCAL CODES)
9. DIRECTIONAL TRAFFIC ARROW. (PER LOCAL CODES)
10. PARKING STALL STRIPING. (PER LOCAL CODES)
11. PEDESTRIAN/ACCESSIBLE CROSSWALK WITH PAVERS.
12. ACCESSIBLE STRIPING & SYMBOL. (TYPICAL–PER ADA AND LOCAL REQUIREMENTS)
13. ACCESSIBLE SIGNS. (TYPICAL–PER ADA AND LOCAL REQUIREMENTS)
14. BOLLARD (TBD).
15. MONUMENT/PYLON SIGN. (TBD).
16. COVERED DUMPSTER ENCLOSURE. (PER ARCH. PLANS)
17. GUARD SHACK
18. LANDSCAPE AREA. (PER LANDSCAPE PLAN)
19. STORM INLET
20. MASONRY WALL
21. LIGHT POLE
22. CONCRETE PAD FOR ELECTRICAL EQUIPMENT
23. ELECTRIC TRANSFORMER PAD
24. ELECTRICAL EQUIPMENT CLEARANCE AREA
25. TELCO PULL BOX
26. EV CHARGING STATION
27. FDC FIRE CONNECT.

ENGINEER:
JM CIVIL ENGINEERING
JOHN MEASELS, P.E.
1101 CENTRAL EXPY S., SUITE 215
ALLEN, TX 75013
JMEASELS@JMCIVILENG.COM
(214) 491–1830

SURVEYOR:
JM SURVEY
SCOTT BERGHERR, RPLS
1101 CENTRAL EXPY S., SUITE 215
ALLEN, TX 75013
SBERGHERR@JMCIVILENG.COM
(214) 705–3174

811 Know what's below. Call before you dig.

JM CIVIL
38 Executive Park
Suite 310
Irvine, CA 92614
Ph. 760-538-3388
Kyle Flaming, PE
CIVIL ENGINEER

FOR REVIEW ONLY. THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW ONLY UNDER THE AUTHORITY OF KYLE FLAMING, P.E. (LIC. NO. 76432). IT IS NOT TO BE USED FOR CONSTRUCTION.

SITE PLAN

GREEN BEE CONCRETE
25775 SHERMAN RD.
PERRIS, CA 92570

REV	DATE	DESCRIPTION	NAME
	02/27/25	INITIAL SUBMITTAL	TA
	06/09/25	CD SUBMITTAL	CK
	12/16/25	FIRE COMMENTS	JM

PROJECT NO: JM–GBC24001.0
DRAWN BY: AB, ML, MA, CK
CHECKED BY: JK
ISSUE DATE: 04/17/2026

C 100

J:\GREEN BEE CONCRETE\JM–GBC24001.0 – PERRIS, CA_CURRENT DRAWINGS\JM–GBC24001 PERRIS CA – MASTER_24X36.DWG 10/12/2026 8:15 AM KYLE FLAMING

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Attachment 02

Environmental Noise Background

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ENVIRONMENTAL NOISE BACKGROUND

Noise may be defined as loud, unpleasant, or unwanted sound. The frequency (pitch), amplitude (intensity or loudness), and duration of noise all contribute to the effect on a listener, or receptor, and whether the receptor perceives the noise as objectionable, disturbing, or annoying.

The Decibel Scale (dB)

The decibel scale (dB) is a unit of measurement that indicates the relative amplitude of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 more intense, and so on. In general, there is a relationship between the subjective noisiness, or loudness of a sound, and its amplitude, or intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50\ decibels + 50\ decibels\ \neq 100\ decibels$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * \ 10\ log\left(10^{\left(\frac{50}{10}\right)} + \ 10^{\left(\frac{50}{10}\right)}\right) = 53\ decibels$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

Sound Characterization

There are several methods of characterizing sound. The most common method is the "A-weighted sound level," or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is typically most sensitive. Thus, most environmental measurements are reported in dBA, meaning decibels on the A-scale.

Human hearing matches the logarithmic A-weighted scale, so that a sound of 60 dBA is perceived as twice as loud as a sound of 50 dBA. In a quiet environment, an increase of 3 dB is usually perceptible, however, in a complex noise environment such as along a busy street, a noise increase of less than 3 dB is usually not perceptible, and an increase of 5 dB is usually perceptible. Normal human speech is in the range from 50 to 65 dBA. Generally, as environmental noise exceeds 50 dBA, it becomes intrusive and above 65 dBA noise becomes excessive. Nighttime activities, including sleep, are more sensitive to noise and are considered affected over a range of 40 to 55 dBA.

Sound levels are typically not steady and can vary over a short time period. The equivalent noise level (L_{eq}) is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady noise that would have the same acoustical energy as the sum of the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are values that are exceeded for a portion of the measured time period. Thus, L_{01} is the level exceeded one percent of the time and L90 is the level exceeded 90 percent of the time. The L_{90} value usually corresponds to the background sound level at the measurement location.

Noise exposure over the course of an entire day is described by the day/night average sound level, or DNL (also referred to as L_{dn}), and the community noise equivalent level, or CNEL. Both

descriptors represent the 24-hour noise impact on a community. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a nine-hour nighttime period (10 PM to 7 AM) and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45-dBA nighttime sound level would contribute as much to the overall day-night average as a 55-dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5 dBA penalty beyond the 10 dBA for sound events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor's increased sensitivity to sound levels during quieter nighttime periods.

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. Theoretically, the sound level of a point source attenuates, or decreases, by 6 dB with each doubling of distance from a point source. Sound levels are also affected by certain environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and attenuation by barriers. Outdoor noise is also attenuated by the building envelope so that sound levels inside a residence are from 10 to 20 dB less than outside, depending mainly on whether windows are open for ventilation or not.

For an ideal "point" source of sound, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. For an ideal line source of sound, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a cylindrical pattern from the source. Theoretically, the sound level attenuates, or decreases, by 3 dB with each doubling of distance from the line source.

Noise Effects on Humans

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

When exposed to high noise levels, humans may suffer hearing damage. Sustained exposure to high noise levels (e.g., 90 dBs for hours at a time) can cause gradual hearing loss, which is usually temporary, whereas sudden exposure to a very high noise level (e.g., 130 to 140 dBs) can cause sudden and permanent hearing loss. In addition to hearing loss, noise can cause stress in humans and may contribute to stress-related diseases, such as hypertension, anxiety, and heart disease (Caltrans, 2013).

Vibration

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes. Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential groundborne noise generation.

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Attachment 03

Ambient Noise Monitoring Data

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Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 3: Ambient Noise Monitoring Data
Prepared by MIG, December 2024

TABLE 1: SUMMARY OF SITE LT1 NOISE MONITORING DATA												
Date	**Time**	**Duration**	**Leq**	**CNEL**	**Lmin**	**Lmax**	**LAS1.67**	**LAS8.34**	**LAS16.70**	**LAS25.00**	**LAS50.00**	**LAS90.00**
9/11/2024	12:00 PM	58 min.	48.5	48.5	42.9	59.2	51.8	50.2	49.5	49.1	48.1	46.8
9/11/2024	1:00 PM	1 hour	48.6	48.6	42.6	64.6	52.4	50.7	49.7	49.2	48.0	46.5
9/11/2024	2:00 PM	1 hour	50.1	50.1	43.5	62.8	53.3	52.0	51.2	50.8	49.6	48.2
9/11/2024	3:00 PM	1 hour	51.3	51.3	46.7	64.7	55.1	53.5	52.3	51.8	50.8	49.4
9/11/2024	4:00 PM	1 hour	52.0	52.0	47.7	62.9	55.3	53.8	53.0	52.6	51.6	50.3
9/11/2024	5:00 PM	1 hour	52.5	52.5	48.4	65.2	55.9	54.2	53.4	53.1	52.1	50.8
9/11/2024	6:00 PM	1 hour	52.5	52.5	47.0	64.3	55.4	54.1	53.4	53.0	52.3	51.1
9/11/2024	7:00 PM	1 hour	51.8	56.8	46.1	69.2	55.5	53.6	52.6	52.1	51.3	50.1
9/11/2024	8:00 PM	1 hour	53.0	58.0	45.3	67.3	56.9	55.6	54.6	54.0	52.3	50.0
9/11/2024	9:00 PM	1 hour	50.9	55.9	45.5	69.8	54.9	53.0	52.4	51.7	50.3	48.4
9/11/2024	10:00 PM	1 hour	51.0	61.0	45.0	59.0	53.8	52.7	52.0	51.6	50.7	49.2
9/11/2024	11:00 PM	1 hour	48.2	58.2	42.2	58.6	51.5	50.2	49.5	49.0	47.7	46.0
9/12/2024	12:00 AM	1 hour	46.7	56.7	37.8	57.6	50.0	48.6	47.9	47.4	46.4	44.5
9/12/2024	1:00 AM	1 hour	46.5	56.5	39.0	67.8	51.7	49.1	47.9	47.2	45.6	43.6
9/12/2024	2:00 AM	1 hour	47.7	57.7	38.3	63.7	52.3	50.2	49.2	48.5	46.9	44.7
9/12/2024	3:00 AM	1 hour	49.6	59.6	39.3	60.5	52.8	51.7	50.9	50.4	49.2	47.0
9/12/2024	4:00 AM	1 hour	53.5	63.5	48.6	60.1	55.9	55.0	54.4	54.0	53.2	52.0
9/12/2024	5:00 AM	1 hour	53.8	63.8	47.4	61.7	56.0	55.2	54.7	54.3	53.7	52.3
9/12/2024	6:00 AM	1 hour	50.4	60.4	45.5	67.8	53.8	52.7	51.5	50.9	49.9	48.7
9/12/2024	7:00 AM	1 hour	49.3	49.3	43.6	59.2	51.6	50.6	50.0	49.6	49.0	48.1
9/12/2024	8:00 AM	1 hour	46.6	46.6	39.8	57.8	49.6	48.3	47.6	47.2	46.1	44.9
9/12/2024	9:00 AM	1 hour	48.5	48.5	39.9	63.4	52.0	50.3	49.6	49.1	48.1	46.8
9/12/2024	10:00 AM	1 hour	49.4	49.4	40.9	69.0	54.1	52.4	51.1	49.9	48.2	46.5
9/12/2024	11:00 AM	1 hour	50.1	50.1	43.6	65.5	54.5	53.0	52.0	51.2	49.2	46.6
Daytime (7 AM to 7 PM)			*50.3*	--	*39.8*	*69.0*	*53.8*	*52.3*	*51.4*	*50.9*	*49.8*	*48.4*
Evening (7 PM to 10 PM)			*52.0*	--	*45.3*	*69.8*	*55.9*	*54.2*	*53.3*	*52.7*	*51.4*	*49.6*
Nightime (10 PM to 7 AM)			*50.5*	--	*37.8*	*67.8*	*53.5*	*52.3*	*51.6*	*51.1*	*50.1*	*48.6*
	24-hour CNEL		--	***57.3***	--	--	--	--	--	--	--	--

Table 2: Summary of Site ST-1 and LT-1 Noise Monitoring Data											
Site	**Date**	**Time**	**Duration**	**Leq**	**Lmin**	**Lmax**	**LAS1.67**	**LAS8.34**	**LAS25.00**	**LAS50.00**	**LAS90.00**
ST-1	9/11/2024	12:15 PM	1 hour	61.0	40.2	81.4	66.6	65.8	62.9	58.2	51.9
LT-1	9/11/2024	12:00 PM	24 hours	50.6	37.8	69.8	54.0	52.6	51.2	50.2	48.7

Summary

File Name on	LT_GB.001.s
File Name on PC	LxT_0005065-20240911 102500-LT_GB.001.ldbin
Serial Number	0005065
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	L2 Green Bee, Perris, September 11-12, 2024
Start	2024-09-11 10:25:00
Stop	2024-09-12 12:35:59
Duration	26:10:59.602
Run Time	26:10:59.602
Pause	00:00:00.0
Pre-Calibration	2024-09-11 10:21:33
Post-Calibration	2024-09-12 12:37:23
Calibration	-0.13 dB

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone	Off
Integration	Exponential
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max	Bin Max
Overload	122.6 dB

	A	C	Z	
Under Range Peak	**79.1**	76.1	81.1	dB
Under Range	**24.3**	25.3	31.5	dB
Noise Floor	15.1	16.2	22.3	dB

	First	Second	Third
Instrument Identification	L02	MIG INC	916-956-3802

Results

LA_{Seq}	50.8	dB
LASE	100.5	dB
EAS	1.259	mPa^2h

EAS8		384.725	µPa²h
EAS40		1.924	mPa²h
LApk (max)	2024-09-12 12:27:34	116.9	dB
LASmax	2024-09-12 12:27:34	82.8	dB
LASmin	2024-09-12 00:35:05	37.8	dB
SEA		-99.9	dB

	Exceedance Counts	Duration	
LAS > 70.0 dB	4	11.9	s
LAS > 80.0 dB	1	2.2	s
LApk > 115.0 dB	1	0.4	s
LApk > 135.0 dB	0	0.0	s
LApk > 140.0 dB	0	0.0	s

Community Noise	LDN	LDay 07:00-22:00	LNight 22:00-07:00	LDEN	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00	
	57.0	50.9	50.5	57.3	50.6	52.0	50.5	dB

LCSeq	63.9	dB
LASeq	50.8	dB
LCSeq - LASeq	13.1	dB
LAIeq	54.5	dB
LAeq	50.8	dB
LAIeq - LAeq	3.7	dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	50.8					
LS(max)	82.8	2024/09/12				
LS(min)	37.8	2024/09/12				
Lpk(max)	116.9	2024/09/12				

Overload Count	0	
Overload	0.0	s
OBA Overload	0	
OBA Overload	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.94	0.00	%

Projected Dose	-99.94	0.00 %
TWA (Projected)	-99.9	2.6 dB
TWA (t)	-99.9	11.2 dB
Lep (t)	55.9	55.9 dB

Ln Percentiles

LAS 1.67	56.5 dB
LAS 8.34	53.4 dB
LAS 16.70	52.2 dB
LAS 25.00	51.4 dB
LAS 50.00	49.3 dB
LAS 90.00	44.8 dB

Calibration History

Preamp	Date	dB re 1V/Pa	mV/Pa
Direct	2024-05-28 09:39:19	-28.79	36.34
Direct	2024-05-28 07:08:36	-28.72	36.66
Direct	2020-01-28 06:05:01	-28.49	37.62
PRMLxT1L	2024-09-12 12:37:20	-28.82	36.21
PRMLxT1L	2024-09-11 10:21:31	-28.69	36.79
PRMLxT1L	2024-09-10 03:02:16	-28.76	36.46
PRMLxT1L	2024-09-10 00:42:48	-28.70	36.74
PRMLxT1L	2024-07-30 12:46:13	-28.61	37.11
PRMLxT1L	2024-07-29 12:20:24	-28.70	36.73
PRMLxT1L	2024-07-16 10:07:23	-28.67	36.85
PRMLxT1L	2024-07-15 08:47:07	-28.70	36.74
PRMLxT1L	2024-07-02 09:47:50	-28.72	36.65
PRMLxT1L	2024-07-02 07:12:22	-28.75	36.50
PRMLxT1L	2024-07-02 07:10:58	-28.67	36.84

Note: Detailed calibration records available upon request.

Attachment 04

Construction Noise Data

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Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 04: Construction Noise Data
Prepared by MIG, December 2024

Sheet 1: Construction Noise Estimates

Equipment	RNL (Lmax)	Usage Factor	Distance from Source and Maximum Noise Level (Lmax)							
			25	50	75	125	225	300	500	750
Backhoe	80	1	86	80	76	72	67	64	60	56
Bulldozer	85	1	91	85	81	77	72	69	65	61
Compact roller	80	1	86	80	76	72	67	64	60	56
Compressor	80	1	86	80	76	72	67	64	60	56
Concrete Mixer	85	1	91	85	81	77	72	69	65	61
Crane	85	1	91	85	81	77	72	69	65	61
Delivery Truck	84	1	90	84	80	76	71	68	64	60
Excavator	85	1	91	85	81	77	72	69	65	61
Generator	82	1	88	82	78	74	69	66	62	58
Grader	85	1	91	85	81	77	72	69	65	61
Man Lift	85	1	91	85	81	77	72	69	65	61
Paver	85	1	91	85	81	77	72	69	65	61
Pneumatic tools	85	1	91	85	81	77	72	69	65	61
Pumps	77	1	83	77	73	69	64	61	57	53
Scraper	85	1	91	85	81	77	72	69	65	61
Tractor	84	1	90	84	80	76	71	68	64	60
Vacuum Truck	85	1	91	85	81	77	72	69	65	61
Welder	74	1	80	74	70	66	61	58	54	50

Notes: RNL - Caltrans / FHWA Spec Max Reference Noise Level (Lmax) at 50 ft

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 04: Construction Noise Data
Prepared by MIG, December 2024

Sheet 2: Construction Noise Barrier Attenuation Estimate

Table 1: Source/ Property Line Receiver Information				
Noise Source:	Construction Equipment			
Source Noise Level:	91	dBA		
Source Frequency:	500	Hertz		

Table 2: Source, Receptor, and Barrier Elevation Data						
Receptor	Elevation Above Mean Sea Level					
	Grade	Receiver	Source	Effective Source	Barrier	Top of Barrier
Southeast Residence	0.0	5.0	0.0	7.0	8.0	8.0

Table 3: Barrier Insertion Loss Summary			
Property Line	Preliminary Barrier Insertion Loss Estimate		
	Predicted Noise Level	Barrier Attenuation	Noise Level with Barrier
Southeast Residence	91.0	11.6	79.4

Table 4: Barrier Attenuation 8-Foot High Wall								
Receptor	A	B	C	D	D1	D2	H1	H2
Southeast Residence	25.02	5.83	30.07	30	25	5	2.0	3.0

Table 5: Fresnel Number (N_0) and Barrier Insertion Loss Estimate				
Receptor	δ (Feet)	λ (Feet)	N_0	Insertion Loss (dB)
Southeast Residence	0.78	2.300	0.682	11.6

Attachment 05

Reference and Project Noise Level Data

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Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Noise Level Data
Prepared by MIG, December 2024

Contents:

Sheet 1 Reference Noise Level Information
Sheet 2 Maximum Project Noise Level (Lmax) Estimates
Sheet 3 Total Project Noise Level (Leq) Estimates
Sheet 4 Estimated Change in Ambient Noise Levels
Sheet 5 Receptor 1 Noise Barrier Attenuation Estimate
Sheet 6 Receptor 2 Noise Barrier Attenuation Estimate
Sheet 7 Receptor 3 Noise Barrier Attenuation Estimate
Sheet 8 Receptor 4 Noise Barrier Attenuation Estimate
Sheet 9 Receptor 5 Noise Barrier Attenuation Estimate

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 1: Reference Noise Level Data

Table 1: Reference Noise Level Information (3 Feet)

Noise Source	Reference dBA Lmax @ 3 Feet	Duration (Seconds)	Estimated Hourly Leq @ 3 Feet
On-site Automobile Trip			
Low speed travel (15 mph)/parking	*55*	*30*	*34.2*
Door closing	*80*	*2*	*47.4*
Engine start/rev	*90*	*10*	*64.4*
Total Combined Noise Level			*64.5*
On-Site Truck Trip			
Low speed travel (15 mph)	*96*	*30*	*75.2*
Maneuvering (with backup alarm)	*100*	*60*	*82.2*
Air brake release	*98*	*3*	*67.2*
Main engine idling	*86*	*300*	*75.2*
Door closing	*80*	*2*	*47.4*
Engine start/rev	*100*	*20*	*77.4*
Total Combined Noise Level			*84.7*
Forklift			
Operation	*70*	*1800*	*67.0*
Backup Alarm	*100*	*90*	*84.0*
Total Combined Noise Level			*84.1*
HVAC Unit			
Operation (5 Ton)	*80*	*3,600*	*80.0*
Saw			
Operation (low, not cutting)	*65*	*1200*	*60.2*
Operation (high, cutting)	*90*	*2400*	*88.2*
Total Combined Noise Level			*88.2*
Mechanics Shop			
Miscellaneous Operations	*80*	*1,800*	*77.0*

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 2: Maximum Project Noise Level (Lmax) Estimates

Table 1: Estimated Maximum Noise Levels at R1						
On-Site Noise Source	**Reference Noise Data**		**Property Line (Single Source)**		**Barrier Attenuation**	**Estimated Noise Level**
	Distance	**dBA Lmax**	**Distance**	**dBA Lmax**	**dBA**	**dBA Lmax**
Automobile Parking	3	90.0	325	49.3	-13.3	36.0
Truck Parking	3	100.0	760	51.9	-5.3	46.6
Forklift Operations	3	100.0	760	51.9	-5.6	46.3
HVAC	3	80.0	640	33.4	-5.5	28.0
Saw 1	3	90.0	No Line of Sight			
Saw 2	3	90.0	No Line of Sight			
Saw 3	3	90.0	No Line of Sight			
Mechanics Shop	3	80.0	No Line of Sight			
					Worst-Case Lmax:	**46.6**

Table 2: Estimated Maximum Noise Levels at R2						
On-Site Noise Source	**Reference Noise Data**		**Property Line (Single Source)**		**Barrier Attenuation**	**Estimated Noise Level**
	Distance	**dBA Lmax**	**Distance**	**dBA Lmax**	**dBA**	**dBA Lmax**
Automobile Parking	3	90.0	20	73.5	-21.9	51.6
Truck Parking	3	100.0	340	58.9	-19.8	39.1
Forklift Operations	3	100.0	340	58.9	-19.8	39.1
HVAC	3	80.0	220	42.7	-16.4	26.3
Saw 1	3	90.0	No Line of Sight			
Saw 2	3	90.0	No Line of Sight			
Saw 3	3	90.0	No Line of Sight			
Mechanics Shop	3	80.0	No Line of Sight			
					Worst-Case Lmax:	**51.6**

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Table 3: Estimated Maximum Noise Levels at R3

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Lmax	Distance	dBA Lmax	dBA	dBA Lmax
Automobile Parking	3	90.0	620	43.7	-5.9	37.8
Truck Parking	3	100.0	395	57.6	-9.3	48.3
Forklift Operations	3	100.0	395	57.6	-15.7	41.9
HVAC	3	80.0	680	32.9	-5.7	27.2
Saw 1	3	90.0	435	46.8	-9.9	36.9
Saw 2	3	90.0	485	45.8	-10.2	35.7
Saw 3	3	90.0	550	44.7	-7.9	36.8
Mechanics Shop	3	80.0	610	33.8	-6.9	27.0
					Worst-Case Lmax:	**48.3**

Table 4: Estimated Maximum Noise Levels at R4

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Lmax	Distance	dBA Lmax	dBA	dBA Lmax
Automobile Parking	3	90.0	350	48.7	-6.2	42.4
Truck Parking	3	100.0	130	67.3	-9.5	57.8
Forklift Operations	3	100.0	130	67.3	-15.7	51.6
HVAC	3	80.0	460	36.3	-5.1	31.2
Saw 1	3	90.0	290	50.3	-10.6	39.7
Saw 2	3	90.0	370	48.2	-9.4	38.8
Saw 3	3	90.0	425	47.0	-7.2	39.8
Mechanics Shop	3	80.0	435	36.8	-6.9	29.9
					Worst-Case Lmax:	**57.8**

Table 5: Estimated Maximum Noise Levels at R5

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Lmax	Distance	dBA Lmax	dBA	dBA Lmax
Automobile Parking	3	90.0	400	47.5	-6.3	41.2
Truck Parking	3	100.0	170	64.9	-9.4	55.5
Forklift Operations	3	100.0	170	64.9	-15.7	49.3
HVAC	3	80.0	560	34.6	-5.2	29.4
Saw 1	3	90.0	410	47.3	-8.8	38.5
Saw 2	3	90.0	500	45.6	-8.1	37.4
Saw 3	3	90.0	550	44.7	-6.8	37.9
Mechanics Shop	3	80.0	550	34.7	-6.6	28.2
					Worst-Case Lmax:	**55.5**

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 3: Total Project Noise Level (Leq) Estimates

Table 1: Estimated Total Combined Noise Level at R1

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Property Line (Multiple Sources)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Leq	Distance	dBA Leq	No. Sources	dBA Leq	dBA	dBA Leq
Automobile Parking	3	64.5	325	23.8	20	36.8	-13.3	23.5
Truck Parking	3	84.7	760	36.6	12	47.4	-5.3	42.1
Forklift Operations	3	84.1	760	36.0	1	36.0	-5.6	30.4
HVAC	3	80.0	640	33.4	1	33.4	-5.5	28.0
Saw 1	3	88.2	No Line of Sight					
Saw 2	3	88.2	No Line of Sight					
Saw 3	3	88.2	No Line of Sight					
Mechanics Shop	3	77.0	No Line of Sight					
							Total Combined Noise Level:	**42.6**

Table 2: Estimated Total Combined Noise Level at R2

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Property Line (Multiple Sources)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Leq	Distance	dBA Leq	No. Sources	dBA Leq	dBA	dBA Leq
Automobile Parking	3	64.5	20	48.0	20	61.1	-21.9	39.1
Truck Parking	3	84.7	340	43.6	12	54.4	-19.8	34.6
Forklift Operations	3	84.1	340	43.0	1	43.0	-19.8	23.1
HVAC	3	80.0	220	42.7	1	42.7	-16.4	26.3
Saw 1	3	88.2	No Line of Sight					
Saw 2	3	88.2	No Line of Sight					
Saw 3	3	88.2	No Line of Sight					
Mechanics Shop	3	77.0	No Line of Sight					
							Total Combined Noise Level:	**40.7**

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Table 3: Estimated Total Combined Noise Level at R3

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Property Line (Multiple Sources)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Leq	Distance	dBA Leq	No. Sources	dBA Leq	dBA	dBA Leq
Automobile Parking	3	64.5	620	18.2	20	31.2	-5.9	25.3
Truck Parking	3	84.7	395	42.3	12	53.1	-9.3	43.8
Forklift Operations	3	84.1	395	41.7	1	41.7	-15.7	26.0
HVAC	3	80.0	680	32.9	1	32.9	-5.7	27.2
Saw 1	3	88.2	435	45.0	1	45.0	-9.9	35.1
Saw 2	3	88.2	485	44.1	1	44.1	-10.2	33.9
Saw 3	3	88.2	550	43.0	1	43.0	-7.9	35.1
Mechanics Shop	3	77.0	610	30.8	1	30.8	-6.9	24.0
						Total Combined Noise Level:		**45.3**

Table 4: Estimated Total Combined Noise Level at R4

On-Site Noise Source	Reference Noise Data		Property Line (Single Source)		Property Line (Multiple Sources)		Barrier Attenuation	Estimated Noise Level
	Distance	dBA Leq	Distance	dBA Leq	No. Sources	dBA Leq	dBA	dBA Leq
Automobile Parking	3	64.5	350	23.2	20	36.2	-6.2	30.0
Truck Parking	3	84.7	130	51.9	12	62.7	-9.5	53.3
Forklift Operations	3	84.1	130	51.3	1	51.3	-15.7	35.6
HVAC	3	80.0	460	36.3	1	36.3	-5.1	31.2
Saw 1	3	88.2	290	48.5	1	48.5	-10.6	38.0
Saw 2	3	88.2	370	46.4	1	46.4	-9.4	37.0
Saw 3	3	88.2	425	45.2	1	45.2	-7.2	38.0
Mechanics Shop	3	77.0	435	33.8	1	33.8	-6.9	26.8
						Total Combined Noise Level:		**53.7**

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Table 5: Estimated Total Combined Noise Level at R5								
On-Site Noise Source	**Reference Noise Data**		**Property Line (Single Source)**		**Property Line (Multiple Sources)**		**Barrier Attenuation**	**Estimated Noise Level**
	Distance	**dBA Leq**	**Distance**	**dBA Leq**	**No. Sources**	**dBA Leq**	**dBA**	**dBA Leq**
Automobile Parking	3	64.5	400	22.0	20	35.0	-6.3	28.7
Truck Parking	3	84.7	170	49.6	12	60.4	-9.4	51.0
Forklift Operations	3	84.1	170	49.0	1	49.0	-15.7	33.3
HVAC	3	80.0	560	34.6	1	34.6	-5.2	29.4
Saw 1	3	88.2	410	45.5	1	45.5	-8.8	36.7
Saw 2	3	88.2	500	43.8	1	43.8	-8.1	35.7
Saw 3	3	88.2	550	43.0	1	43.0	-6.8	36.2
Mechanics Shop	3	77.0	550	31.7	1	31.7	-6.6	25.2
						Total Combined Noise Level:		**51.5**

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 4: Estimated Change in Ambient Noise Levels

Table 1: Estimated Change in Ambient Noise Levels at R1						
	Existing Noise Level		Project Noise Level		Existing Plus Project Noise	
Hour	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL
7:00 AM	59.3	59.3	40.4	40.4	59.4	59.4
8:00 AM	56.6	56.6	40.4	40.4	56.7	56.7
9:00 AM	58.5	58.5	40.4	40.4	58.6	58.6
10:00 AM	59.4	59.4	40.4	40.4	59.4	59.4
11:00 AM	60.1	60.1	42.0	42.0	60.2	60.2
12:00 PM	58.5	58.5	40.4	40.4	58.6	58.6
1:00 PM	58.6	58.6	40.4	40.4	58.7	58.7
2:00 PM	60.1	60.1	40.4	40.4	60.1	60.1
3:00 PM	61.3	61.3	40.4	40.4	61.4	61.4
4:00 PM	62.0	62.0	40.4	40.4	62.0	62.0
5:00 PM	62.5	62.5	40.4	40.4	62.5	62.5
6:00 PM	62.5	62.5	0.0	0.0	62.5	62.5
7:00 PM	61.8	66.8	0.0	5.0	61.8	66.8
8:00 PM	63.0	68.0	0.0	5.0	63.0	68.0
9:00 PM	60.9	65.9	0.0	5.0	60.9	65.9
10:00 PM	61.0	71.0	0.0	10.0	61.0	71.0
11:00 PM	58.2	68.2	0.0	10.0	58.2	68.2
12:00 AM	56.7	66.7	0.0	10.0	56.7	66.7
1:00 AM	56.5	66.5	42.0	52.0	56.6	66.6
2:00 AM	57.7	67.7	40.4	50.4	57.8	67.8
3:00 AM	59.6	69.6	40.4	50.4	59.6	69.6
4:00 AM	63.5	73.5	40.4	50.4	63.5	73.5
5:00 AM	63.8	73.8	40.4	50.4	63.8	73.8
6:00 AM	60.4	70.4	40.4	50.4	60.5	70.5
Daytime (7 AM to 7 PM)	*60.4*	--	*39.8*	--	*60.5*	--
Evening (7 PM to 10 PM)	*62.0*	--	*0.0*	--	*62.0*	--
Nightime (10 PM to 7 AM)	*60.5*	--	*38.9*	--	*60.5*	--
24-hour CNEL	--	***67.3***	--	***45.4***	--	***67.3***
Notes: Existing noise level is based on LT-1 with a +10 dBA adjustment based on LT-1 to ST-1 comparison (see Attachment 03)						

Table 2: Estimated Change in Ambient Noise Levels at R2						
	Existing Noise Level		Project Noise Level		Existing Plus Project Noise	
Hour	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL
7:00 AM	59.3	59.3	40.4	40.4	59.4	59.4
8:00 AM	56.6	56.6	40.4	40.4	56.7	56.7
9:00 AM	58.5	58.5	40.4	40.4	58.6	58.6
10:00 AM	59.4	59.4	40.4	40.4	59.4	59.4
11:00 AM	60.1	60.1	31.3	31.3	60.1	60.1
12:00 PM	58.5	58.5	40.4	40.4	58.6	58.6
1:00 PM	58.6	58.6	40.4	40.4	58.7	58.7
2:00 PM	60.1	60.1	40.4	40.4	60.1	60.1
3:00 PM	61.3	61.3	40.4	40.4	61.4	61.4
4:00 PM	62.0	62.0	40.4	40.4	62.0	62.0
5:00 PM	62.5	62.5	40.4	40.4	62.5	62.5
6:00 PM	62.5	62.5	0.0	0.0	62.5	62.5
7:00 PM	61.8	66.8	0.0	5.0	61.8	66.8
8:00 PM	63.0	68.0	0.0	5.0	63.0	68.0
9:00 PM	60.9	65.9	0.0	5.0	60.9	65.9
10:00 PM	61.0	71.0	0.0	10.0	61.0	71.0
11:00 PM	58.2	68.2	0.0	10.0	58.2	68.2
12:00 AM	56.7	66.7	0.0	10.0	56.7	66.7
1:00 AM	56.5	66.5	31.3	41.3	56.5	66.5
2:00 AM	57.7	67.7	40.4	50.4	57.8	67.8
3:00 AM	59.6	69.6	40.4	50.4	59.6	69.6
4:00 AM	63.5	73.5	40.4	50.4	63.5	73.5
5:00 AM	63.8	73.8	40.4	50.4	63.8	73.8
6:00 AM	60.4	70.4	40.4	50.4	60.5	70.5
Daytime (7 AM to 7 PM)	*60.4*	--	*39.3*	--	*60.5*	--
Evening (7 PM to 10 PM)	*62.0*	--	*0.0*	--	*62.0*	--
Nightime (10 PM to 7 AM)	*60.5*	--	*37.9*	--	*60.5*	--
24-hour CNEL	--	***67.3***	--	***44.5***	--	***67.3***
Notes: Existing noise level is based on LT-1 with a +10 dBA adjustment based on LT-1 to ST-1 comparison (see Attachment 03)						

Table 3: Estimated Change in Ambient Noise Levels at R3						
	Existing Noise Level		Project Noise Level		Existing Plus Project Noise	
Hour	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL
7:00 AM	49.3	49.3	45.3	45.3	50.8	50.8
8:00 AM	46.6	46.6	45.3	45.3	49.0	49.0
9:00 AM	48.5	48.5	45.3	45.3	50.2	50.2
10:00 AM	49.4	49.4	45.3	45.3	50.8	50.8
11:00 AM	50.1	50.1	45.3	45.3	51.4	51.4
12:00 PM	48.5	48.5	45.3	45.3	50.2	50.2
1:00 PM	48.6	48.6	45.3	45.3	50.3	50.3
2:00 PM	50.1	50.1	45.3	45.3	51.3	51.3
3:00 PM	51.3	51.3	45.3	45.3	52.3	52.3
4:00 PM	52.0	52.0	45.3	45.3	52.9	52.9
5:00 PM	52.5	52.5	45.3	45.3	53.3	53.3
6:00 PM	52.5	52.5	0.0	0.0	52.5	52.5
7:00 PM	51.8	56.8	0.0	0.0	51.8	56.8
8:00 PM	53.0	58.0	0.0	0.0	53.0	58.0
9:00 PM	50.9	55.9	0.0	0.0	50.9	55.9
10:00 PM	51.0	61.0	0.0	0.0	51.0	61.0
11:00 PM	48.2	58.2	0.0	0.0	48.2	58.2
12:00 AM	46.7	56.7	0.0	0.0	46.7	56.7
1:00 AM	46.5	56.5	0.0	0.0	46.5	56.5
2:00 AM	47.7	57.7	0.0	0.0	47.7	57.7
3:00 AM	49.6	59.6	0.0	0.0	49.6	59.6
4:00 AM	53.5	63.5	0.0	0.0	53.5	63.5
5:00 AM	53.8	63.8	0.0	0.0	53.8	63.8
6:00 AM	50.4	60.4	45.3	55.3	51.6	61.6
Daytime (7 AM to 7 PM)	*50.4*	--	*44.6*	--	*51.5*	--
Evening (7 PM to 10 PM)	*52.0*	--	*0.0*	--	*52.0*	--
Nightime (10 PM to 7 AM)	*50.5*	--	*35.8*	--	*50.6*	--
24-hour CNEL	--	***57.3***	--	***44.8***	--	***57.5***
Note: Existing noise level is based on ambient noise monitoring at LT-1 (see Attachment 03)						

Table 4: Estimated Change in Ambient Noise Levels at R4						
	Existing Noise Level		Project Noise Level		Existing Plus Project Noise	
Hour	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL
7:00 AM	49.3	49.3	53.7	53.7	55.1	55.1
8:00 AM	46.6	46.6	53.7	53.7	54.5	54.5
9:00 AM	48.5	48.5	53.7	53.7	54.9	54.9
10:00 AM	49.4	49.4	53.7	53.7	55.1	55.1
11:00 AM	50.1	50.1	53.7	53.7	55.3	55.3
12:00 PM	48.5	48.5	53.7	53.7	54.9	54.9
1:00 PM	48.6	48.6	53.7	53.7	54.9	54.9
2:00 PM	50.1	50.1	53.7	53.7	55.3	55.3
3:00 PM	51.3	51.3	53.7	53.7	55.7	55.7
4:00 PM	52.0	52.0	53.7	53.7	56.0	56.0
5:00 PM	52.5	52.5	53.7	53.7	56.2	56.2
6:00 PM	52.5	52.5	0.0	0.0	52.5	52.5
7:00 PM	51.8	56.8	0.0	0.0	51.8	56.8
8:00 PM	53.0	58.0	0.0	0.0	53.0	58.0
9:00 PM	50.9	55.9	0.0	0.0	50.9	55.9
10:00 PM	51.0	61.0	0.0	0.0	51.0	61.0
11:00 PM	48.2	58.2	0.0	0.0	48.2	58.2
12:00 AM	46.7	56.7	0.0	0.0	46.7	56.7
1:00 AM	46.5	56.5	0.0	0.0	46.5	56.5
2:00 AM	47.7	57.7	0.0	0.0	47.7	57.7
3:00 AM	49.6	59.6	0.0	0.0	49.6	59.6
4:00 AM	53.5	63.5	0.0	0.0	53.5	63.5
5:00 AM	53.8	63.8	0.0	0.0	53.8	63.8
6:00 AM	50.4	60.4	53.7	63.7	55.4	65.4
Daytime (7 AM to 7 PM)	*50.4*	--	*53.0*	--	*54.9*	--
Evening (7 PM to 10 PM)	*52.0*	--	*0.0*	--	*52.0*	--
Nightime (10 PM to 7 AM)	*50.5*	--	*44.2*	--	*51.4*	--
24-hour CNEL	--	***57.3***	--	***53.1***	--	***58.7***

Note: Existing noise level is based on ambient noise monitoring at LT-1 (see Attachment 03)

Table 5: Estimated Change in Ambient Noise Levels at R5						
	Existing Noise Level		Project Noise Level		Existing Plus Project Noise	
Hour	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL	dBA Leq	dBA CNEL
7:00 AM	49.3	49.3	51.5	51.5	53.6	53.6
8:00 AM	46.6	46.6	51.5	51.5	52.7	52.7
9:00 AM	48.5	48.5	51.5	51.5	53.3	53.3
10:00 AM	49.4	49.4	51.5	51.5	53.6	53.6
11:00 AM	50.1	50.1	51.5	51.5	53.9	53.9
12:00 PM	48.5	48.5	51.5	51.5	53.3	53.3
1:00 PM	48.6	48.6	51.5	51.5	53.3	53.3
2:00 PM	50.1	50.1	51.5	51.5	53.9	53.9
3:00 PM	51.3	51.3	51.5	51.5	54.4	54.4
4:00 PM	52.0	52.0	51.5	51.5	54.8	54.8
5:00 PM	52.5	52.5	51.5	51.5	55.0	55.0
6:00 PM	52.5	52.5	0.0	0.0	52.5	52.5
7:00 PM	51.8	56.8	0.0	0.0	51.8	56.8
8:00 PM	53.0	58.0	0.0	0.0	53.0	58.0
9:00 PM	50.9	55.9	0.0	0.0	50.9	55.9
10:00 PM	51.0	61.0	0.0	0.0	51.0	61.0
11:00 PM	48.2	58.2	0.0	0.0	48.2	58.2
12:00 AM	46.7	56.7	0.0	0.0	46.7	56.7
1:00 AM	46.5	56.5	0.0	0.0	46.5	56.5
2:00 AM	47.7	57.7	0.0	0.0	47.7	57.7
3:00 AM	49.6	59.6	0.0	0.0	49.6	59.6
4:00 AM	53.5	63.5	0.0	0.0	53.5	63.5
5:00 AM	53.8	63.8	0.0	0.0	53.8	63.8
6:00 AM	50.4	60.4	51.5	61.5	54.0	64.0
Daytime (7 AM to 7 PM)	*50.4*	--	*50.8*	--	*53.6*	--
Evening (7 PM to 10 PM)	*52.0*	--	*0.0*	--	*52.0*	--
Nightime (10 PM to 7 AM)	*50.5*	--	*42.0*	--	*51.1*	--
24-hour CNEL	--	***57.3***	--	***50.9***	--	***58.2***
Note: Existing noise level is based on ambient noise monitoring at LT-1 (see Attachment 03)						

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 5: R1 Noise Barrier Attenuation Estimates (Operational Noise)

Table 1: Source Noise Level Information								
Noise Source:	Autos	Trucks	Forklifts	HVAC	Saw 1	Saw 2	Saw 3	Mech Shop
Source Noise Level (dBA Lmax):	49.3	51.9	51.9	33.4	--	--	--	--
Source Noise Level (dBA Leq):	36.8	47.4	36.0	33.4	--	--	--	--
Source Frequency (Hz):	500	500	500	250	--	--	--	--

Table 2: R1 Source, Receptor, and Barrier Elevation Data						
Source	**Elevation Above Mean Sea Level**					
	Grade	**Receiver**	**Source**	**Effective Source**	**Barrier**	**Top of Barrier**
Automobile Parking	0.0	5.0	0.0	3.0	0.0	8.0
Truck Parking	0.0	5.0	0.0	6.0	0.0	8.0
Forklift Operations	0.0	5.0	0.0	3.0	0.0	8.0
HVAC	0.0	5.0	0.0	20.0	0.0	8.0
Saw 1	0.0	5.0	0.0	3.0	0.0	8.0
Saw 2	0.0	5.0	0.0	3.0	0.0	8.0
Saw 3	0.0	5.0	0.0	3.0	0.0	8.0
Mechanics Shop	0.0	5.0	0.0	3.0	0.0	8.0

Table 3: Path Length Difference With 8-Foot-High Wall								
Receptor	**A**	**B**	**C**	**D**	**D1**	**D2**	**H1**	**H2**
Automobile Parking	11.18	315.01	325.01	325	10	315	-2.0	3.0
Truck Parking	445.00	315.01	760.00	760	445	315	1.0	3.0
Forklift Operations	445.03	315.01	760.00	760	445	315	-2.0	3.0
HVAC	325.22	315.01	640.18	640	325	315	15.0	3.0

Table 4: Fresnel Number (N_0) and Barrier Insertion Loss Estimate				
Receptor	**δ (Feet)**	**λ (Feet)**	**N_0**	**Insertion Loss (dB)**
Automobile Parking	1.19	2.250	1.056419	13.3
Truck Parking	0.02	2.250	0.016108	5.3
Forklift Operations	0.04	2.250	0.035327	5.6
HVAC	0.06	4.500	0.026663	5.5

Table 5: R1 Barrier Insertion Loss Summary (dBA Lmax)			
Source	**Noise Level (dBA Lmax)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Lmax)**
Automobile Parking	49.3	-13.3	36.0
Truck Parking	51.9	-5.3	46.6
Forklift Operations	51.9	-5.6	46.3
HVAC	33.4	-5.5	28.0

Table 6: R1 Barrier Insertion Loss Summary (dBA Leq)			
Source	**Noise Level (dBA Leq)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Leq)**
Automobile Parking	36.8	-13.3	23.5
Truck Parking	47.4	-5.3	42.1
Forklift Operations	36.0	-5.6	30.4
HVAC	33.4	-5.5	28.0

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 6: R2 Noise Barrier Attenuation Estimates (Operational Noise)

Table 1: Source Noise Level Information								
Noise Source:	Autos	Trucks	Forklifts	HVAC	Saw 1	Saw 2	Saw 3	Mech Shop
Source Noise Level (dBA Lmax):	73.5	58.9	58.9	42.7	--	--	--	--
Source Noise Level (dBA Leq):	61.1	54.4	43.0	42.7	--	--	--	--
Source Frequency (Hz):	500	500	500	250	--	--	--	--

Table 2: R2 Source, Receptor, and Barrier Elevation Data						
Source	**Elevation Above Mean Sea Level**					
	Grade	**Receiver**	**Source**	**Effective Source**	**Barrier**	**Top of Barrier**
Automobile Parking	0.0	5.0	0.0	3.0	0.0	14.0
Truck Parking	0.0	5.0	0.0	6.0	0.0	14.0
Forklift Operations	0.0	5.0	0.0	3.0	0.0	14.0
HVAC	0.0	5.0	0.0	20.0	0.0	14.0
Saw 1	0.0	5.0	0.0	3.0	0.0	14.0
Saw 2	0.0	5.0	0.0	3.0	0.0	14.0
Saw 3	0.0	5.0	0.0	3.0	0.0	14.0
Mechanics Shop	0.0	5.0	0.0	3.0	0.0	14.0

Table 3: Path Length Difference with 14-Foot-High Wall								
Receptor	**A**	**B**	**C**	**D**	**D1**	**D2**	**H1**	**H2**
Automobile Parking	18.60	10.30	20.10	20	15	5	-2.0	9.0
Truck Parking	340.09	10.30	345.00	345	340	5	1.0	9.0
Forklift Operations	340.18	10.30	345.01	345	340	5	-2.0	9.0
HVAC	220.08	10.30	225.50	225	220	5	15.0	9.0

Table 4: Fresnel Number (N_0) and Barrier Insertion Loss Estimate				
Receptor	**δ (Feet)**	**λ (Feet)**	**N_0**	**Insertion Loss (dB)**
Automobile Parking	8.80	2.250	7.819515	21.9
Truck Parking	5.39	2.250	4.789587	19.8
Forklift Operations	5.47	2.250	4.860202	19.8
HVAC	4.88	4.500	2.167994	16.4

Table 5: R2 Barrier Insertion Loss Summary (dBA Lmax)			
Source	**Noise Level (dBA Lmax)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Lmax)**
Automobile Parking	73.5	-21.9	51.6
Truck Parking	58.9	-19.8	39.1
Forklift Operations	58.9	-19.8	39.1
HVAC	42.7	-16.4	26.3

Table 6: R2 Barrier Insertion Loss Summary (dBA Leq)			
Source	**Noise Level (dBA Leq)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Leq)**
Automobile Parking	61.1	-21.9	39.1
Truck Parking	54.4	-19.8	34.6
Forklift Operations	43.0	-19.8	23.1
HVAC	42.7	-16.4	26.3

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 7: R3 Noise Barrier Attenuation Estimates (Operational Noise)

Table 1: Source Noise Level Information								
Noise Source:	Autos	Trucks	Forklifts	HVAC	Saw 1	Saw 2	Saw 3	Mech Shop
Source Noise Level (dBA Lmax):	43.7	57.6	57.6	32.9	46.8	45.8	44.7	33.8
Source Noise Level (dBA Leq):	31.2	53.1	41.7	32.9	45.0	44.1	43.0	30.8
Source Frequency (Hz):	500	500	500	250	1000	1000	1000	1000

Table 2: R3 Source, Receptor, and Barrier Elevation Data						
Source	**Elevation Above Mean Sea Level**					
	Grade	**Receiver**	**Source**	**Effective Source**	**Barrier**	**Top of Barrier**
Automobile Parking	0.0	5.0	0.0	3.0	0.0	8.0
Truck Parking	0.0	5.0	0.0	6.0	0.0	8.0
Forklift Operations	0.0	5.0	0.0	3.0	0.0	8.0
HVAC	0.0	5.0	0.0	20.0	0.0	8.0
Saw 1	0.0	5.0	0.0	3.0	0.0	8.0
Saw 2	0.0	5.0	0.0	3.0	0.0	8.0
Saw 3	0.0	5.0	0.0	3.0	0.0	8.0
Mechanics Shop	0.0	5.0	0.0	3.0	0.0	8.0

Table 3: Path Length Difference With 8-Foot-High Wall								
Receptor	**A**	**B**	**C**	**D**	**D1**	**D2**	**H1**	**H2**
Automobile Parking	235.05	385.01	620.00	620	235	385	-2.0	3.0
Truck Parking	5.39	385.01	390.00	390	5	385	1.0	3.0
Forklift Operations	7.07	385.01	390.01	390	5	385	-2.0	3.0
HVAC	300.24	385.01	685.16	685	300	385	15.0	3.0
Saw 1	55.23	385.01	440.00	440	55	385	-2.0	3.0
Saw 2	50.25	440.01	490.00	490	50	440	-2.0	3.0
Saw 3	115.11	440.01	555.00	555	115	440	-2.0	3.0
Mechanics Shop	210.06	405.01	615.00	615	210	405	-2.0	3.0

Table 4: Fresnel Number (N_0) and Barrier Insertion Loss Estimate				
Receptor	**δ (Feet)**	**λ (Feet)**	**N_0**	**Insertion Loss (dB)**
Automobile Parking	0.06	2.250	0.054798	5.9
Truck Parking	0.40	2.250	0.351619	9.3
Forklift Operations	2.08	2.250	1.84678	15.7
HVAC	0.09	4.500	0.038835	5.7
Saw 1	0.23	1.120	0.417764	9.9
Saw 2	0.26	1.120	0.456292	10.2
Saw 3	0.12	1.120	0.205836	7.9
Mechanics Shop	0.07	1.120	0.120311	6.9

Table 5: R3 Barrier Insertion Loss Summary (dBA Lmax)			
Source	**Noise Level (dBA Lmax)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Lmax)**
Automobile Parking	43.7	-5.9	37.8
Truck Parking	57.6	-9.3	48.3
Forklift Operations	57.6	-15.7	41.9
HVAC	32.9	-5.7	27.2
Saw 1	46.8	-9.9	36.9
Saw 2	45.8	-10.2	35.7
Saw 3	44.7	-7.9	36.8
Mechanics Shop	33.8	-6.9	27.0

Table 6: R3 Barrier Insertion Loss Summary (dBA Leq)			
Source	**Noise Level (dBA Leq)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Leq)**
Automobile Parking	31.2	-5.9	25.3
Truck Parking	53.1	-9.3	43.8
Forklift Operations	41.7	-15.7	26.0
HVAC	32.9	-5.7	27.2
Saw 1	45.0	-9.9	35.1
Saw 2	44.1	-10.2	33.9
Saw 3	43.0	-7.9	35.1
Mechanics Shop	30.8	-6.9	24.0

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 8: R4 Noise Barrier Attenuation Estimates (Operational Noise)

Table 1: Source Noise Level Information								
Noise Source:	Autos	Trucks	Forklifts	HVAC	Saw 1	Saw 2	Saw 3	Mech Shop
Source Noise Level (dBA Lmax):	48.7	67.3	67.3	36.3	50.3	48.2	47.0	36.8
Source Noise Level (dBA Leq):	36.2	62.7	51.3	36.3	48.5	46.4	45.2	33.8
Source Frequency (Hz):	500	500	500	250	1000	1000	1000	1000

Table 2: R4 Source, Receptor, and Barrier Elevation Data						
Source	**Elevation Above Mean Sea Level**					
	Grade	**Receiver**	**Source**	**Effective Source**	**Barrier**	**Top of Barrier**
Automobile Parking	0.0	5.0	0.0	3.0	0.0	8.0
Truck Parking	0.0	5.0	0.0	6.0	0.0	8.0
Forklift Operations	0.0	5.0	0.0	3.0	0.0	8.0
HVAC	0.0	5.0	0.0	20.0	0.0	8.0
Saw 1	0.0	5.0	0.0	3.0	0.0	8.0
Saw 2	0.0	5.0	0.0	3.0	0.0	8.0
Saw 3	0.0	5.0	0.0	3.0	0.0	8.0
Mechanics Shop	0.0	5.0	0.0	3.0	0.0	8.0

Table 3: Path Length Difference With 8-Foot-High Wall								
Receptor	**A**	**B**	**C**	**D**	**D1**	**D2**	**H1**	**H2**
Automobile Parking	220.06	135.03	355.01	355	220	135	-2.0	3.0
Truck Parking	5.39	130.03	135.00	135	5	130	1.0	3.0
Forklift Operations	7.07	130.03	135.01	135	5	130	-2.0	3.0
HVAC	315.23	150.03	465.24	465	315	150	15.0	3.0
Saw 1	45.28	250.02	295.01	295	45	250	-2.0	3.0
Saw 2	65.19	310.01	375.01	375	65	310	-2.0	3.0
Saw 3	185.07	245.02	430.00	430	185	245	-2.0	3.0
Mechanics Shop	255.05	180.02	435.00	435	255	180	-2.0	3.0

Table 4: Fresnel Number (N_0) and Barrier Insertion Loss Estimate				
Receptor	**δ (Feet)**	**λ (Feet)**	**N_0**	**Insertion Loss (dB)**
Automobile Parking	0.08	2.250	0.075117	6.2
Truck Parking	0.42	2.250	0.369842	9.5
Forklift Operations	2.09	2.250	1.858546	15.7
HVAC	0.02	4.500	0.007384	5.1
Saw 1	0.29	1.120	0.514545	10.6
Saw 2	0.20	1.120	0.359297	9.4
Saw 3	0.08	1.120	0.145126	7.2
Mechanics Shop	0.07	1.120	0.123956	6.9

Table 5: R4 Barrier Insertion Loss Summary (dBA Lmax)			
Source	**Noise Level (dBA Lmax)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Lmax)**
Automobile Parking	48.7	-6.2	42.4
Truck Parking	67.3	-9.5	57.8
Forklift Operations	67.3	-15.7	51.6
HVAC	36.3	-5.1	31.2
Saw 1	50.3	-10.6	39.7
Saw 2	48.2	-9.4	38.8
Saw 3	47.0	-7.2	39.8
Mechanics Shop	36.8	-6.9	29.9

Table 6: R1 Barrier Insertion Loss Summary (dBA Leq)			
Source	**Noise Level (dBA Leq)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Leq)**
Automobile Parking	36.2	-6.2	30.0
Truck Parking	62.7	-9.5	53.3
Forklift Operations	51.3	-15.7	35.6
HVAC	36.3	-5.1	31.2
Saw 1	48.5	-10.6	38.0
Saw 2	46.4	-9.4	37.0
Saw 3	45.2	-7.2	38.0
Mechanics Shop	33.8	-6.9	26.8

Green Bee Concrete Contractor Yard Project
Perris, CA
Attachment 05: Reference and Project Level Data
Prepared by MIG, December 2024

Sheet 9: R5 Noise Barrier Attenuation Estimates (Operational Noise)

Table 1: Source Noise Level Information								
Noise Source:	Autos	Trucks	Forklifts	HVAC	Saw 1	Saw 2	Saw 3	Mech Shop
Source Noise Level (dBA Lmax):	47.5	64.9	64.9	34.6	47.3	45.6	44.7	34.7
Source Noise Level (dBA Leq):	35.0	60.4	49.0	34.6	45.5	43.8	43.0	31.7
Source Frequency (Hz):	500	500	500	250	1000	1000	1000	1000

Table 2: R5 Source, Receptor, and Barrier Elevation Data						
Source	**Elevation Above Mean Sea Level**					
	Grade	**Receiver**	**Source**	**Effective Source**	**Barrier**	**Top of Barrier**
Automobile Parking	0.0	5.0	0.0	3.0	0.0	8.0
Truck Parking	0.0	5.0	0.0	6.0	0.0	8.0
Forklift Operations	0.0	5.0	0.0	3.0	0.0	8.0
HVAC	0.0	5.0	0.0	20.0	0.0	8.0
Saw 1	0.0	5.0	0.0	3.0	0.0	8.0
Saw 2	0.0	5.0	0.0	3.0	0.0	8.0
Saw 3	0.0	5.0	0.0	3.0	0.0	8.0
Mechanics Shop	0.0	5.0	0.0	3.0	0.0	8.0

Table 3: Path Length Difference With 8-Foot-High Wall								
Receptor	**A**	**B**	**C**	**D**	**D1**	**D2**	**H1**	**H2**
Automobile Parking	165.08	240.02	405.00	405	165	240	-2.0	3.0
Truck Parking	5.39	170.03	175.00	175	5	170	1.0	3.0
Forklift Operations	7.07	170.03	175.01	175	5	170	-2.0	3.0
HVAC	365.20	200.02	565.20	565	365	200	15.0	3.0
Saw 1	80.16	335.01	415.00	415	80	335	-2.0	3.0
Saw 2	105.12	400.01	505.00	505	105	400	-2.0	3.0
Saw 3	230.05	325.01	555.00	555	230	325	-2.0	3.0
Mechanics Shop	310.04	245.02	555.00	555	310	245	-2.0	3.0

Table 4: Fresnel Number (N_0) and Barrier Insertion Loss Estimate				
Receptor	**δ (Feet)**	**λ (Feet)**	**N_0**	**Insertion Loss (dB)**
Automobile Parking	0.09	2.250	0.079601	6.3
Truck Parking	0.41	2.250	0.363357	9.4
Forklift Operations	2.09	2.250	1.854318	15.7
HVAC	0.02	4.500	0.009167	5.2
Saw 1	0.16	1.120	0.294127	8.8
Saw 2	0.13	1.120	0.225482	8.1
Saw 3	0.06	1.120	0.115328	6.8
Mechanics Shop	0.06	1.120	0.098363	6.6

Table 5: R5 Barrier Insertion Loss Summary (dBA Lmax)			
Source	**Noise Level (dBA Lmax)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Lmax)**
Automobile Parking	47.5	-6.3	41.2
Truck Parking	64.9	-9.4	55.5
Forklift Operations	64.9	-15.7	49.3
HVAC	34.6	-5.2	29.4
Saw 1	47.3	-8.8	38.5
Saw 2	45.6	-8.1	37.4
Saw 3	44.7	-6.8	37.9
Mechanics Shop	34.7	-6.6	28.2

Table 6: R1 Barrier Insertion Loss Summary (dBA Leq)			
Source	**Noise Level (dBA Leq)**	**Barrier Attenuation**	**Noise Level with Barrier (dBA Leq)**
Automobile Parking	35.0	-6.3	28.7
Truck Parking	60.4	-9.4	51.0
Forklift Operations	49.0	-15.7	33.3
HVAC	34.6	-5.2	29.4
Saw 1	45.5	-8.8	36.7
Saw 2	43.8	-8.1	35.7
Saw 3	43.0	-6.8	36.2
Mechanics Shop	31.7	-6.6	25.2

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CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION
135 NORTH D STREET, PERRIS, CA 92570-2200
TEL.: (951) 943-5003 FAX: (951) 943-8379

June 27, 2025

Agua Caliente Band of Cahuilla Indians
Patricia Garcia, Director of THPO
5401 Dinah Shore Drive
Palm Springs, CA 92264
PAGarcia@aguacliente.net

Subject: AB 52 Tribal Consultation for CUP 24-05264

Dear Representative:

The City of Perris is hereby providing notification that an application is being processed for a project located in the geographic area traditionally and culturally affiliated with **Agua Caliente Band of Cahuilla Indians** tribe. Please see the project description below and the attached exhibits. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the City of Perris will be preparing an environmental document consisting of: 1) a negative declaration; 2) a mitigated negative declaration; or 3) an environmental impact report. State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) provides California Native American tribes 30 days to request consultation regarding possible significant effects of the proposed project's implementation on tribal cultural resources. The request must be in writing to the City of Perris and identify a lead contact person. The City of Perris will begin the consultation process within 30 days of receiving the tribe's request for consultation. The consultation may include a discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend. See the project description and information below:

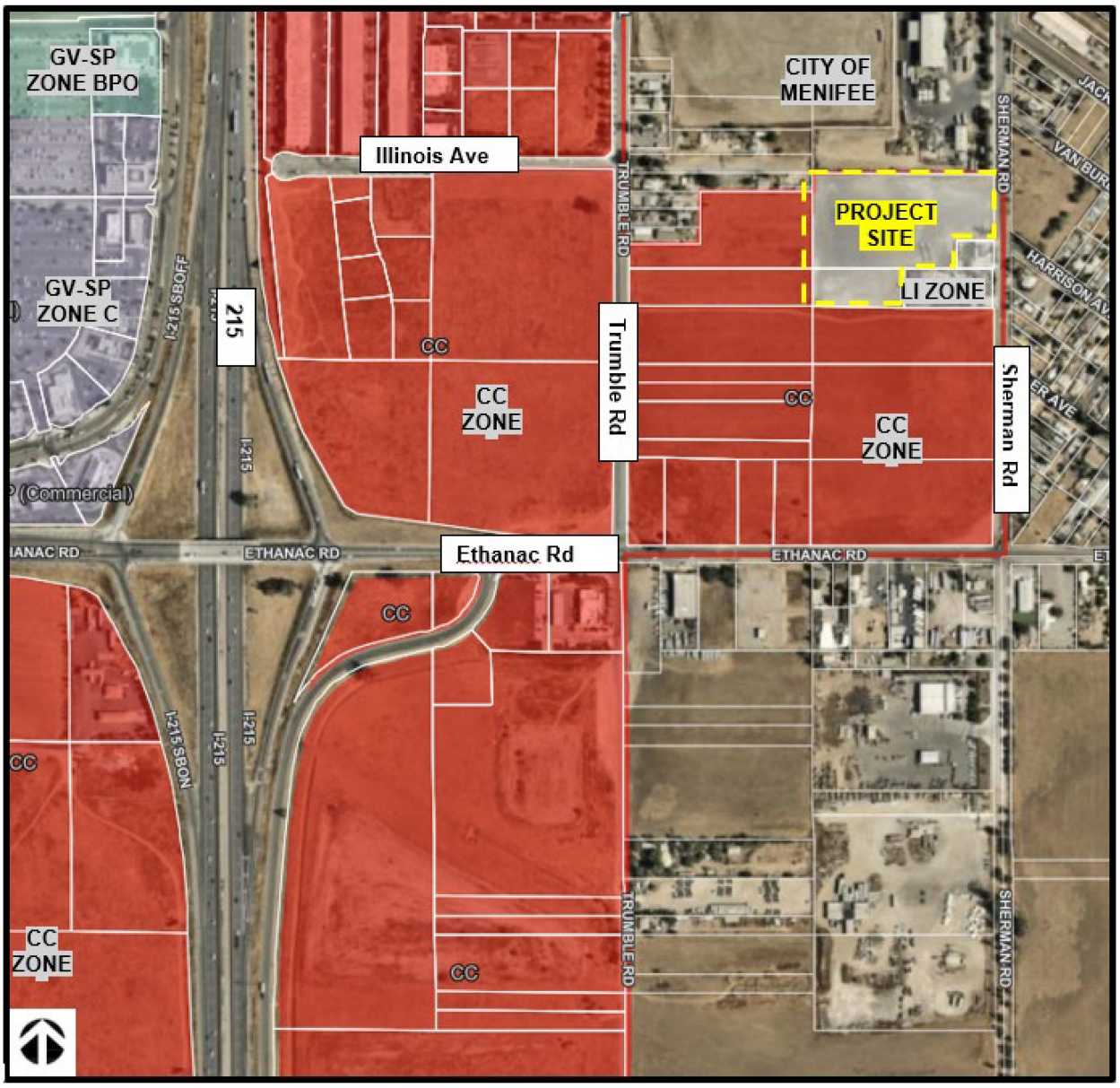
Case Numbers: **Conditional Use Permit 24-05264**

Project Description: A conditional use permit application to construct a 25,028 square foot new building for office space, storage space, and a mechanical shop, with additional outdoor storage for a lumber yard with covered shade structures, on 5.49 acres located at 25775 Sherman Road in the Light Industrial (LI) Zone

Location: **25775 Sherman Road**.

Assessor's Parcel No's: 329-240-031 and 329-240-028

Project Vicinity Map:



Your prompt response is appreciated. Should you have any further questions regarding this matter, please feel free to contact me at (951) 943-5003 ext. 370 or by e-mail at mcarranza@cityofperris.org.

Sincerely,

Monica Carranza

Monica Carranza
Assistant Planner

Attachments: Site Plan

CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION
135 NORTH D STREET, PERRIS, CA 92570-2200
TEL.: (951) 943-5003 FAX: (951) 943-8379

June 27, 2025

Morongo Band of Mission Indians
Ann Brierty, Tribal Historic Preservation Officer
12700 Pumarra Road
Banning, CA 92220
abrierty@morongo-nsn.gov

Subject: AB 52 Tribal Consultation for CUP 24-05264

Dear Representative:

The City of Perris is hereby providing notification that an application is being processed for a project located in the geographic area traditionally and culturally affiliated with **Morongo Band of Mission Indians** tribe. Please see the project description below and the attached exhibits. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the City of Perris will be preparing an environmental document consisting of: 1) a negative declaration; 2) a mitigated negative declaration; or 3) an environmental impact report. State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) provides California Native American tribes 30 days to request consultation regarding possible significant effects of the proposed project's implementation on tribal cultural resources. The request must be in writing to the City of Perris and identify a lead contact person. The City of Perris will begin the consultation process within 30 days of receiving the tribe's request for consultation. The consultation may include a discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend. See the project description and information below:

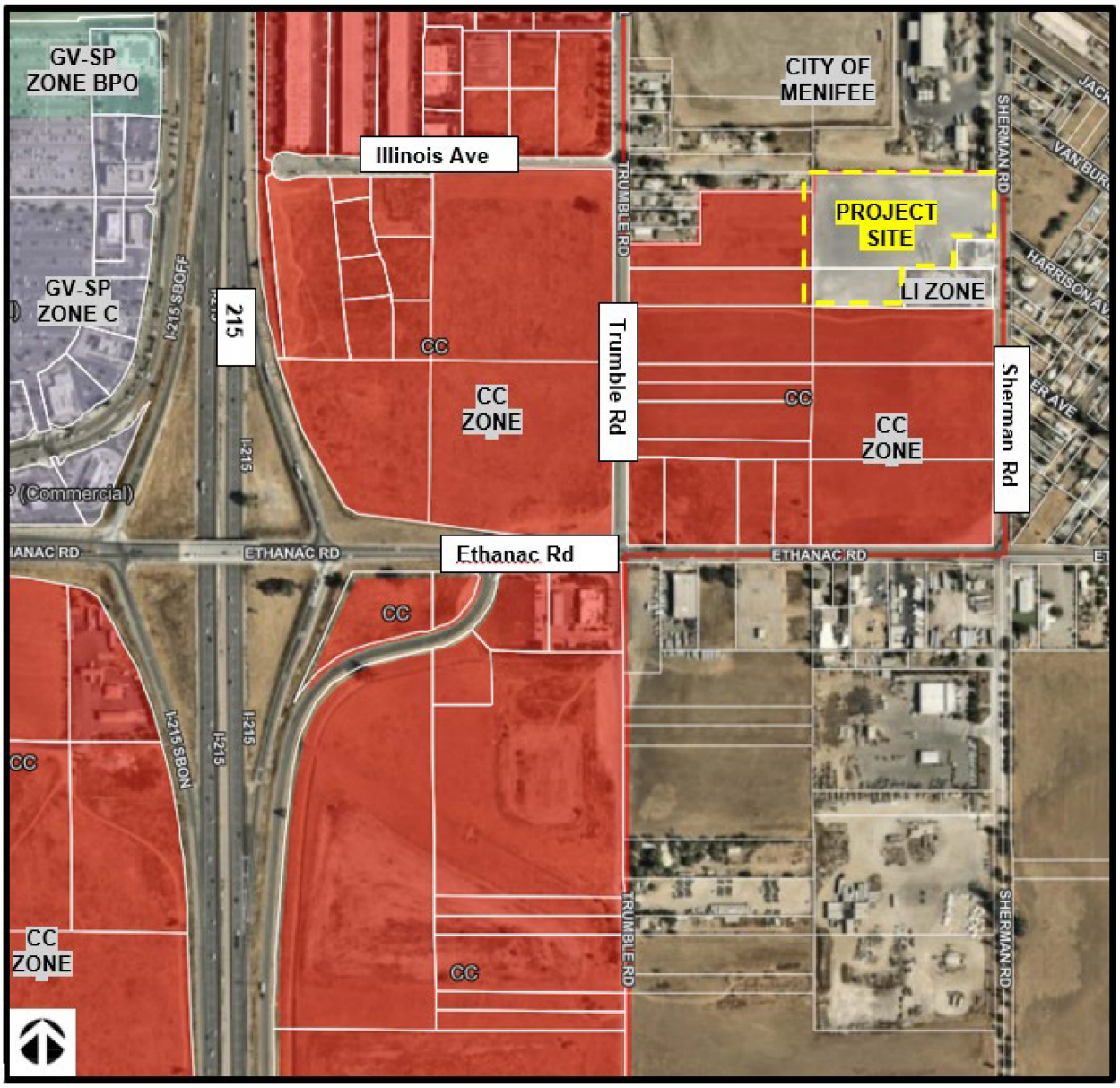
Case Numbers: **Conditional Use Permit 24-05264**

Project Description: A conditional use permit application to construct a 25,028 square foot new building for office space, storage space, and a mechanical shop, with additional outdoor storage for a lumber yard with covered shade structures, on 5.49 acres located at 25775 Sherman Road in the Light Industrial (LI) Zone

Location: **25775 Sherman Road**.

Assessor's Parcel No's: 329-240-031 and 329-240-028

Project Vicinity Map:



Your prompt response is appreciated. Should you have any further questions regarding this matter, please feel free to contact me at (951) 943-5003 ext. 370 or by e-mail at mcarranza@cityofperris.org.

Sincerely,

Monica Carranza

Monica Carranza
Assistant Planner

Attachments: Site Plan

CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION
135 NORTH D STREET, PERRIS, CA 92570-2200
TEL.: (951) 943-5003 FAX: (951) 943-8379

June 27, 2025

Pechanga Band of Mission Indians
Ebru Ozdil, Planning Specialist
PO Box 2183
Temecula, CA 92593
eozdil@pechanga-nsn.gov
jochoa@pechanga-nsn.gov

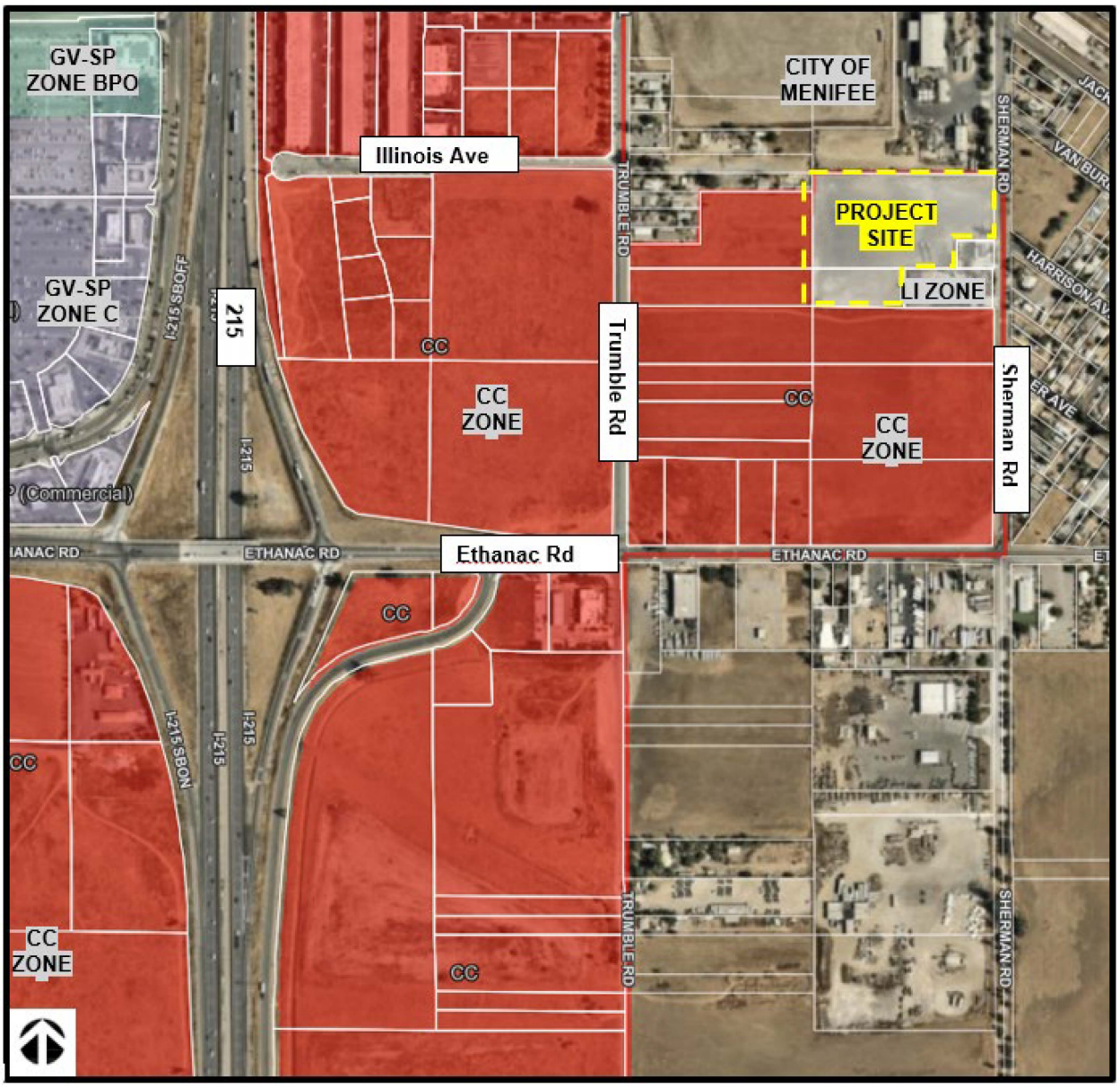
Subject: AB 52 Tribal Consultation for CUP 24-05264

Dear Representative:

The City of Perris is hereby providing notification that an application is being processed for a project located in the geographic area traditionally and culturally affiliated with **Pechanga Band of Mission Indians** tribe. Please see the project description below and the attached exhibits. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the City of Perris will be preparing an environmental document consisting of: 1) a negative declaration; 2) a mitigated negative declaration; or 3) an environmental impact report. State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) provides California Native American tribes 30 days to request consultation regarding possible significant effects of the proposed project's implementation on tribal cultural resources. The request must be in writing to the City of Perris and identify a lead contact person. The City of Perris will begin the consultation process within 30 days of receiving the tribe's request for consultation. The consultation may include a discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend. See the project description and information below:

Case Numbers:	**Conditional Use Permit 24-05264**
Project Description:	A conditional use permit application to construct a 25,028 square foot new building for office space, storage space, and a mechanical shop, with additional outdoor storage for a lumber yard with covered shade structures, on 5.49 acres located at 25775 Sherman Road in the Light Industrial (LI) Zone
Location:	**25775 Sherman Road**.
Assessor's Parcel No's:	329-240-031 and 329-240-028

Project Vicinity Map:



Your prompt response is appreciated. Should you have any further questions regarding this matter, please feel free to contact me at (951) 943-5003 ext. 370 or by e-mail at mcarranza@cityofperris.org.

Sincerely,

Monica Carranza

Monica Carranza
Assistant Planner

Attachments: Site Plan

CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION
135 NORTH D STREET, PERRIS, CA 92570-2200
TEL.: (951) 943-5003 FAX: (951) 943-8379

June 27, 2025

Rincon Band of Mission Indians
Destiny Colocho, Manager
1 West Tribal Road
Valley Center, CA 92082
dcolocho@rincontribe.org

Subject: AB 52 Tribal Consultation for CUP 24-05264

Dear Representative:

The City of Perris is hereby providing notification that an application is being processed for a project located in the geographic area traditionally and culturally affiliated with **Rincon Band of Mission Indians** tribe. Please see the project description below and the attached exhibits. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the City of Perris will be preparing an environmental document consisting of: 1) a negative declaration; 2) a mitigated negative declaration; or 3) an environmental impact report. State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) provides California Native American tribes 30 days to request consultation regarding possible significant effects of the proposed project's implementation on tribal cultural resources. The request must be in writing to the City of Perris and identify a lead contact person. The City of Perris will begin the consultation process within 30 days of receiving the tribe's request for consultation. The consultation may include a discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend. See the project description and information below:

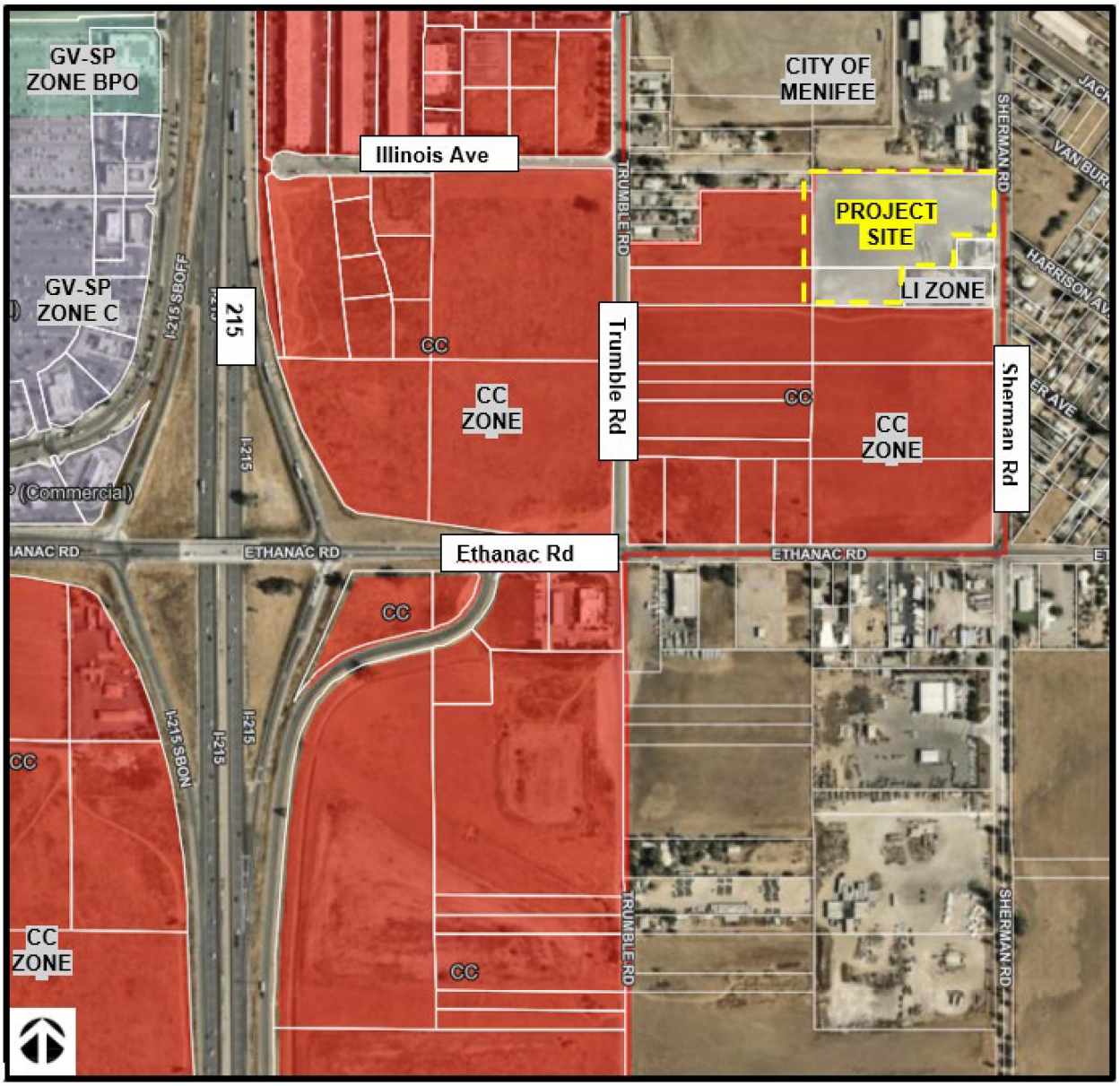
Case Numbers: **Conditional Use Permit 24-05264**

Project Description: A conditional use permit application to construct a 25,028 square foot new building for office space, storage space, and a mechanical shop, with additional outdoor storage for a lumber yard with covered shade structures, on 5.49 acres located at 25775 Sherman Road in the Light Industrial (LI) Zone

Location: **25775 Sherman Road**.

Assessor's Parcel No's: 329-240-031 and 329-240-028

Project Vicinity Map:



Your prompt response is appreciated. Should you have any further questions regarding this matter, please feel free to contact me at (951) 943-5003 ext. 370 or by e-mail at mcarranza@cityofperris.org.

Sincerely,

Monica Carranza

Monica Carranza
Assistant Planner

Attachments: Site Plan

CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION
135 NORTH D STREET, PERRIS, CA 92570-2200
TEL.: (951) 943-5003 FAX: (951) 943-8379

June 27, 2025

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resources Director
PO Box 487
San Jacinto, CA 92581
jontiveros@soboba-nsn.gov

Subject: AB 52 Tribal Consultation for CUP 24-05264

Dear Representative:

The City of Perris is hereby providing notification that an application is being processed for a project located in the geographic area traditionally and culturally affiliated with **Soboba Band of Luiseno Indians** tribe. Please see the project description below and the attached exhibits. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the City of Perris will be preparing an environmental document consisting of: 1) a negative declaration; 2) a mitigated negative declaration; or 3) an environmental impact report. State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) provides California Native American tribes 30 days to request consultation regarding possible significant effects of the proposed project's implementation on tribal cultural resources. The request must be in writing to the City of Perris and identify a lead contact person. The City of Perris will begin the consultation process within 30 days of receiving the tribe's request for consultation. The consultation may include a discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend. See the project description and information below:

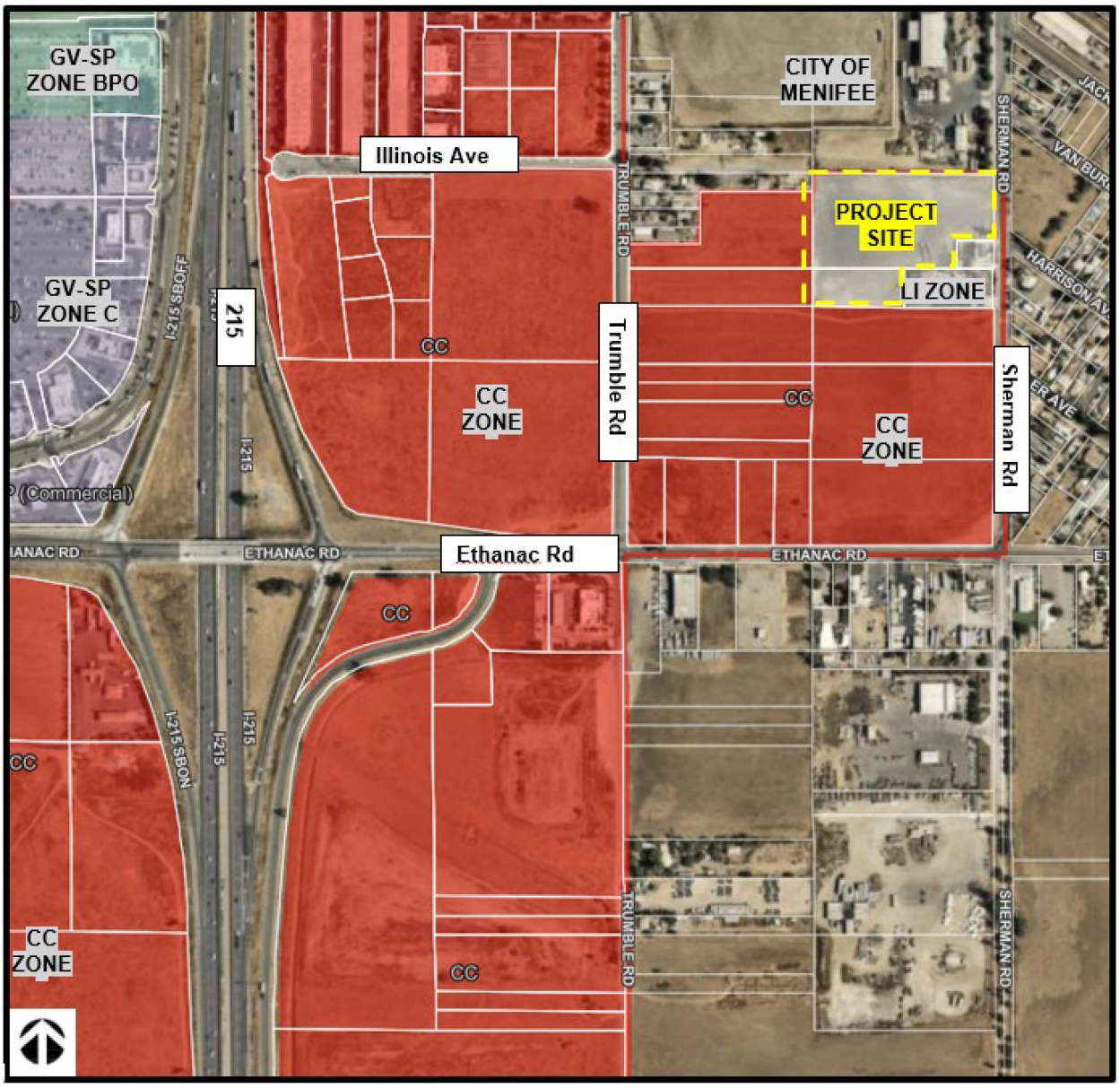
Case Numbers: **Conditional Use Permit 24-05264**

Project Description: A conditional use permit application to construct a 25,028 square foot new building for office space, storage space, and a mechanical shop, with additional outdoor storage for a lumber yard with covered shade structures, on 5.49 acres located at 25775 Sherman Road in the Light Industrial (LI) Zone

Location: **25775 Sherman Road**.

Assessor's Parcel No's: 329-240-031 and 329-240-028

Project Vicinity Map:



Your prompt response is appreciated. Should you have any further questions regarding this matter, please feel free to contact me at (951) 943-5003 ext. 370 or by e-mail at mcarranza@cityofperris.org.

Sincerely,

Monica Carranza

Monica Carranza
Assistant Planner

Attachments: Site Plan

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-041-2025-007

July 23, 2025

[VIA EMAIL TO:mcarranza@cityofperris.org]
City of Perris
Monica Carranza
135 N D St
Perris, CA 92570

Re: CUP24-05264

Dear Monica Carranza,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the CUP24-05264 project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area. For this reason, the ACBCI THPO requests the following:

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

*We defer consultation to local Tribes.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 423-3485. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Xitlaly Madrigal
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

August 7, 2025

Attn: Monica Carranza, Assistant Planner
City of Perris
Development Services Department, Planning Division
135 North D Street
Perris, CA 92570-2200

RE: AB 52 Consultation; CUP 24-05264 – 25775 Sherman Road – APNs 329-240-031 & 329-240-028 – City of Perris, Riverside County, CA

The Soboba Band of Luiseño Indians has received your notification pursuant under Assembly Bill 52.

The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. The project area is considered sensitive by the people of Soboba, as there are existing sites in the surrounding areas. An in-house database search identified multiple areas of potential impact. Based on the sensitive nature of the substantial information that will be disclosed by the tribe, specifics will be discussed in a confidential setting, during consultation.

At this time, the Soboba Band of Luiseño Indians is requesting to initiate formal consultation with the City of Perris. A meeting can be scheduled by contacting me via email or phone. All contact information has been included in this letter.

I look forward to hearing from and meeting with you soon.

Sincerely,

Joseph Ontiveros, Tribal Historic Preservation Officer
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba and the City of Perris. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.